REPORT RESUMES

ED 019 979 LI 000 584

FINAL REPORT OF THE RESEARCH PROJECT FOR THE EVALUATION OF THE UDC AS THE INDEXING LANGUAGE FOR A MECHANIZED REFERENCE RETRIEVAL SYSTEM. APPENDIX 4--UDC ENGLISH MEDIUM EDITION MANUSCRIPT.

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AMERICAN INST. OF PHYSICS, NEW YORK, N.Y.
REPORT NUMBER AIP-UDC-9 PUB DATE 1 MAY 68
EDRS PRICE MF-$2.75 HC NOT AVAILABLE FROM EDRS. 689P.

DESCRIPTORS- *CLASSIFICATION, *INDEXING, *INFORMATION RETRIEVAL, DOCUMENTATION, UNIVERSAL DECIMAL CLASSIFICATION (UDC),

THIS APPENDIX TO THE FINAL REPORT OF THE AIP/UDC PROJECT (LI 000 583) INCLUDES THE FULL MANUSCRIPT FOR THE MAIN CLASSES OF AN ENGLISH LANGUAGE MEDIUM EDITION OF UDC WITH THE EXCEPTION OF CLASS 6. THE RAW MATERIAL FOR THE MANUSCRIPT WAS (1) AN EARLIER VERSION OF THE AIP/UDC PROJECT ENGLISH LANGUAGE MASTER FILE, ISSUED AS LI 000 585, (2) RECENT EXTENSIONS AND CORRECTIONS TO THE UDC, AND (3) THE GERMAN AND FRENCH MEDIUM EDITIONS OF UDC. (RP)

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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FINAL REPORT
of the
RESEARCH PROJECT FOR THE EVALUATION OF THE UDC AS THE INDEXING LANGUAGE FOR A MECHANIZED REFERENCE RETRIEVAL SYSTEM

APPENDIX 4

UDC ENGLISH MEDIUM EDITION MANUSCRIPT

by
Robert R. Freeman and Pauline Atherton

AMERICAN INSTITUTE OF PHYSICS
UDC PROJECT
REPORT NO. AIP/UDC-9
National Science Foundation Grant GN-433

0 GENERALITIES

00 PROLEGOMENA. FUNDAMENTALS OF KNOWLEDGE AND CULTURE

001 THE SCIENCES AND KNOWLEDGE IN GENERAL

:061.1(100) International Scientific Organizations, e.g. UNESCO → 341.16

.1 General conceptions. Definition of science. Limits of knowledge, etc.

.11 Definition of the concept, object. Aim and essence of knowledge

.12 Character of the objects treated of by knowledge. Entities. Phenomena. Facts. States

.18 Future of knowledge. Prediction, forecasting, prophecy

.19 The unknowable and knowledge. Limits of knowledge

.2 Relations between the individual sciences → 001.8; 025.4; 168

.3 Value, significance, use, rank and scope, vindication and praise of science

.35 Criticism of science. Objections to science

.4 Scientific nomenclature. Terminology

.5 Scientific theories, hypotheses and systems. Demonstration of the relationships between scientific facts → 162

.6 Scientific laws → 113; 167

.8 General study of method. Technical and scientific processes in study. Research and discussion. Scientific analysis and synthesis → 001.2

.81 Technique of intellectual work

.811 General considerations. Citation rules. Formats, etc.

.812 Means of work → 025.35; 65.06

.813 Cuttings clippings

.814 Collections of references. Selected data, extracts. Preliminary projects for literary work, etc. → 019.9; 025.347

001.815	Indexing contents of documents. Name and subject indexes → 014.5; 025.347
.816	Preparation for printing and publishing: manuscripts, proofs, etc. → 655.255; 655.52
.817	Preparation of lectures, conferences, lessons and courses
.818	Description of results. Reporting and reports
.83	Intellectual co-operation and collaboration
.85	Scientific criticism
.86	Concordances
.89	Organization of science and of scientific work in general. Science policy → 005; 007; 351.854
.891	Research → .001.5(Aux. I i); 069.8; 65.012.1
:3	in social sciences
.892	Development → .001.6(Aux. I i); 608.1
.92	Dissemination, spread of science and knowledge. Popularization → .001.8(Aux. I i)
.98	False scientific doctrines. Pseudo-sciences. Scientific fallacies and illusions
002	DOCUMENTATION. GENERALITIES CONCERNING COMPILATION, SORTING AND METHODICAL ARRANGEMENT OF DOCUMENTS → 001.8; 01; 02; 025.4; 651.5; 659.2
002.2	Total literary output
(494):31	Statistics of the literary output of Switzerland
.6	Documentation centres → 026; 061.66 002.6.01/.09≐06.01/.09
.61	International Documentation Centres
.63	National Documentation Centres
.66	Documentation services and centres of business and industrial enterprises, public administration services, etc.

003	SEMIOTICS, SYNTACTICS AND SEMANTICS GENERALLY. WRITING. SCRIPTS. NOTATIONS. SIGNS AND SYMBOLS → 744.9; 801
003.01	Origin, forerunners of writing and scripts
.02	Occurence of scripts (e.g. among primitives)
.03	Relationship of writing and scripts to speech
.034	Transliteration
.035	Transcription
.036	Phonetic scripts
.05	Manner of writing or preparing scripts, etc.
.052	By hand. Handwriting
.054	By mechanical means (typescript, print)
.07	Use, applications (inscriptions, records, books,etc.)
.08	Characteristics of writing, scripts
.081	Formation of characters, letters, etc.
.082	Diacritics. Accent signs. Trema. Tilde
.083	Abbreviations. Acronyms
.084	Word formation
.085	Phrase and sentence formation
.086	Punctuation. Marks or signs
.087	Direction of writing (to left, to right, vertical)
003.2	Kinds of writing, inscription or code
.21	Pict~~ural~~orial writing
.22	Syllablic writing
.23	Alphabetic scripts
.24	Writing for the blind. Braille
.25	Morse
.26	Secret writing
003.3	Particular kinds of script
.31	Writing and its substitutes among primitive peoples
.312	Forerunners: signs, marks, notched sticks, knotted strings, spikes, wampums,etc.
.313	Artificial writings of primitive peoples
.314	Pictorial writing
.315	Prehistoric scripts

003.32	Ideographic scripts. Hieroglyphs, etc.
.321	Ancient American (Maya, Aztec, Inca)
.322	Egyptian hieroglyphs
.323	Cuneiform script
.324	Oriental: Chinese, Japanese, etc.
.325	Hittite picture scripts
.33	Oriental alphabetic scripts
.331	Origin of the alphabet
.332	Semitic scripts
.4	Hebrew and Canaanite scripts
.5	Arabic scripts (North Arabic)
.333	Iranian scripts (Pahlevi, Avesta)
.334	Caucasian script (Armenian, Georgian, Ossetian)
.335	Central and North Asiatic scripts (Brahmi, Mongol, Manchu, etc.)
.336	Indic scripts
.34	Occidental (Western) scripts
.341	Greek script
.344	Latin (Roman) and derived scripts: Uncial, Gothic, etc.
.345	Runes
.349	Slavonic scripts. Glagolithic. Cyrillic
.35	Numerical notations
.351	Greek numerals
.352	Roman numerals
.353	Arabic numerals
003.5	Writing materials and implements
.51	Materials to write on (papyrus, parchment, paper)
.57	Media to write with (inks, etc.) → 667.4/.5
.58	Implements (brush, quill, pen, etc.)
003.6	Other kinds of graphic representation of thought
.62	Signs. Notations. Symbols
.63	Diagrams. Cartograms. Schematic representation
.64	Monograms. Anagrams. Chronograms → 347.189; 801.313

005	ORGANIZATION STUDY. METHODOLOGY. ANALYSIS. CLASSIFICATION AND SYSTEMATIZATION → 001.89; 168; 65.01
007	ACTIVITY AND ORGANIZING. INFORMATION, COMMUNICATION AND CONTROL THEORY (CYBERNETICS), INCLUDING HUMAN ENGINEERING → 518; 62-5; 621.316.7; 621.391; 65.01; 658.3; 681
.2	Variability, physical configuration and state. Transformation of state
.3	Directives, programming and physical organization of variability
.5	Self-acting systems and controlled devices
.51	with human operators as links
.52	without human operators as links. Automata. Robots, etc.
008	CIVILIZATION. CULTURE. PROGRESS
009	THE HUMANITIES AND ARTS GENERALLY → 1/2; 7/9
01	BIBLIOGRAPHY. CATALOGUES. BOOKLISTS → 002; 025.3/.4; 930.25
011/016	BIBLIOGRAPHIES
011	Universal and general bibliographies
012	Individual bibliographies of a specific author or from a specific institution → 016
013	Collective bibliographies of specific group of authors
013= ...	using the same language
013"..."	of the same time or period
013(...)	of the same country, region or people (race) → 015
013 : 0/9	of the same profession or body → 016
014	Bibliographies. Lists of works with particular characteristics
.1	Bibliographies of anonymous works and of those published under pseudonyms
.3	Contributions in periodicals or collected works
.5	Separate indexes to specific works

015	Bibliographies according to place of publication of works. National bibliographies
(410)	British National Bibliography
016	Special subject bibliographies
016 : 011	Bibliographies of world bibliographies
: 087.51	Bibliographies of publications for children
: 34(05)	Bibliographies of law periodicals
: 92	Bio-bibliographies
017/019	CATALOGUES → 025.3
017	Catalogues in general. Systematic catalogues. Alphabetic and classified subject catalogues
.091	Location catalogues
.092	Catalogue of additions
.1	Catalogues of public, national, provincial, municipal and institutional libraries
.11	Union catalogues. Central catalogues common to several libraries (by subjects)
.2	Catalogues of private libraries
.3	Catalogues of book sales or auctions
.4	Book-trade catalogues (publishers; booksellers')
.41	Combined or joint catalogues
.42	Catalogues of publishers' or booksellers' (current) stock
.43	Catalogues of bargain and second-hand books
018	Alphabetical catalogues by author, title and subject
.1	Catalogues of public, national and institutional libraries
.11	Alphabetical union or central catalogues
.2	Catalogues of private libraries
.3	Catalogues of book sales or auctions
.4	Book-trade catalogues

019	Dictionary catalogues. Other bibliographies and catalogues
.1	Dictionary catalogues of public, national and institutional libraries
.11	Union catalogues in dictionary form
.2	Dictionary catalogues of private libraries
.3	Dictionary catalogues of book sales or auctions
.4	Book-trade catalogues in dictionary form
.6	Union catalogues → 017.11; 018.11; 019.11
.9	Bibliographies and catalogues according to other characteristics
.921	Complete bibliographies
.922	Select or partial bibliographies
.931	Bibliographies with full title and complete data
.932	Bibliographies with short title and summarized data
.941	Critical bibliographies. Reviews, notices, etc.
.942	Bibliographies which are uncritical, mere lists of works
.951	Bibliographies published as separate volumes
.952	Bibliographies published in, or as, periodicals
.954	Bibliographies in card form. Book-cards
.96	Bibliographies according to form of entry
.962	by names of authors
.963	by subjects
.964	by titles of works
.965	Mixed form
02	LIBRARIANSHIP. LIBRARIES. LIBRARY SCIENCE → 002
021	FUNCTION, UTILITY, CREATION, DEVELOPMENT AND SCOPE OF LIBRARIES
021.3	Libraries in their relation to teaching establishments e.g. to schools
.4	Accessory services, lectures, exhibitions, etc. (extension work)
.6	Scope of service, grouping and co-operation
.62	Branches
.63	Centralization . Library grouping

021.64	Co-operation
.65	Mobile libraries
.8	Relations with public authorities. Legislation
.84	Legal (compulsory) deposit. Official gift
.85	Exchanges
.9	Financial upkeep, funds and other support
022	LIBRARY SITE AND PREMISES → 727.8
.1	Site → 711.5
.2	Building materials. Protection → 691; 699.8
.3	General planning, layout, room(s) available
.4	Book storage arrangements, shelving, stacks
.42	Arrangement (along walls, in bays, galleries)
.43	Stack arrangement
.44	Open shelving, cases or racks
.47	Closed bookcases, cabinets, etc.
.48	Special-purpose cases or cabinets, e.g. for maps
.5	Reading rooms. Rooms for study
.6	Space for administrative and accessory services
.7	Lighting → 628.9; 696.6
.8	Heating and ventilation → 628.8; 697
.9	Fixed furniture, fittings, technical installations
023	MANAGEMENT. STAFF
-05	Persons: age, sex, health, etc.
.08	Service: duties, responsabilities, conditions, etc. ≙ 35.08
024	USE OF THE LIBRARY. REGULATIONS
.01	Rules and regulations
.1	Conditions imposed on readers
.2	Subscriptions and charges, or free use
.3	Hours of opening
.4	Times of closing. Holiday closing
.5	Use of books in the library: consultation, access, etc.

024.6	Lending, loan details, restrictions → 025.6
.68	Inter-library loans → 021.6
.7	Privileges granted to certain readers
.8	Damage to books caused by readers, loss, theft
025	LIBRARY ADMINISTRATION, METHODS, DEPARTMENTS
.1	Executive. General management and direction
.11	Finances: receipts and expenditure
.12	Printed material, publications of the library
.13	Reproduction and selection of documents
.15	Correspondence
.17	Treatment of special materials (manuscripts, cuttings) → 025.29
.2	Accessions. Acquisition and expansion
.21	Selection of books and documents
.22	Acquisition methods: purchase, exchange, gift
.24	Treatment of books on arrival. Collation
.25	Processing of accessions
.26	Treatment of duplicates. Exchanges
.29	Special collections: deposit, housing, etc.
025.3	Cataloguing and indexing → 001.815; 017/019
.31	Cataloguing rules. General instructions
.32	General elements of cataloguing. Entries, etc.
.33	Collation. Cataloguing of parts of works
.34	Catalogues according to arrangement of entries
.341	Catalogues according to accession number or location
.342	Author catalogues (alphabetical)
.343	Subject catalogues (alphabetical, classified)
.346	Catalogues of additions. Lists of new books
.347	Alphabetical indexes (subject, personal and place names) → 001.815

025.35	Catalogues according to external form
.352	Printed (book) catalogues
.354	Card catalogues
025.4	Classification (of documents). Library classification → 001.2; 005; 168; 651.533
.41	Elements of classification. Principle of division. Systems of notation: figures, letters, symbols and combinations, mnemonic elements → 003
.44	Classification systems using letters
.45/.46	Classification systems using numbers or figures
.45DC	Dewey Decimal Classification
.45UDC	The Universal Decimal Classification (UDC, CDU, DK)
.46	Other decimal classifications
.47	Mixed systems using letters with numbers or figures
.49	Other classification systems
025.5	Reference work. Information service
.6	Loan, circulation, routing. Book-charging devices. Dummies for books on loan → 024.6
.7	Binding, upkeep and repair of books → 686.1
.8	Handling and treatment, filing, marking, etc. (books, microcopies, cuttings, pamphlets) → 022.4
.85	Care. Protection from dust, dry-rot, etc. → 024.8
.855	Destruction and dispersal (voluntary) of collections
025.9	Upkeep, maintenance of premises
026	SPECIAL LIBRARIES → 002.6
.06	Audiovisual material collections (records, films, etc.) → 371.68
.062	Gramophone record libraries (discotheques)
.064	Film libraries
.066	Tape-recordings

026.07 Kinds of special libraries
≐ 027

.08 Mode of use (reference, lending)
.081/.082 ≐ 027.081/.082

027 GENERAL LIBRARIES

.021 Scientific, technical
→ 026

.022 Popular, non-technical

.081 Reference or predominantly reference

.082 Lending or predominantly lending
→ 027.3

.1 Private libraries. Family libraries

.2 Libraries of societies, clubs, institutions, etc.

.3 Commercial lending libraries. Subscription libraries

.4 Free public libraries (established and supported by individuals and institutions)

.5 Tax- and rate-supported libraries

.52 Municipal or borough libraries. Public libraries (in U.K.)

.53 Regional or provincial libraries. County libraries (in U.K.)

.54 State libraries. National libraries (general)

.6 Libraries for specific groups of readers, e.g. hospital, prison and factory libraries

: 362.41 Libraries for the blind

.7 Libraries for higher educational establishments. University and college libraries

.8 School libraries
→ 371.64; 371.622

.9 Free public reading and newspapers rooms

028 READING. ADVICE AND AID FOR READERS

.01 Taste for reading. Love of reading
→ 090.1

.02 Psychology of reading. Reader-author-book relations

.1 Methods, techniques of reading

.3 Courses of reading

.6 Teaching the art of reading

.7 Use of reference works

.8 Advice and aid for the reader

03	ENCYCLOPAEDIAS. DICTIONARIES. REFERENCE BOOKS
	→ 801.3
030.1	General universal encyclopaedias
.8	Dictionaries, vocabularies for practical use
04	COLLECTIONS OF ESSAYS, REPORTS, ETC. OFFPRINTS. REPRINTS. PAMPHLETS. BROCHURES
	≙ (04)
05	PERIODICALS. REVIEWS. SERIAL PUBLICATIONS
	→ 07; 082
050	Utility, sponsorship, business and editorial management
	≙ 070
058	Yearbooks. Directories
.7	Address books. Street and professional directories
.8	Lists of subscribers
: 654.15	Telephone directories
059	Almanacs. Calendars
	→ 264-11; 529.3/.5
.2	Sheet calendars. Tear-off calendars
.3	Ephemerides. Calendar of coming events
.7	New Year and Christmas calendars, albums, etc.
06	ORGANIZATIONS. ASSOCIATIONS. CONGRESSES. MUSEUMS
.0	Special auxiliaries (*not* applicable at 069)
.01	General character, constitution, aim, etc.
.011	Type, name and scope, aim or purpose, site (HQ)
.012	Foundation. Duration. Disbandment or dissolution
.013	Statutes, rules, legal personality
.017	Union, affiliation, merging with other organizations
.02	Membership: control, categories, rights and duties
.021	Members: general matters, lists, rolls
.022	Admission, election. Resignation. Exclusion

06.023	Kinds of membership
.2	Regular members (individual or corporate)
.6	Supporting members. Associate members
.7	Honorary members
.024	Grouping of members
.026	Rights and duties of members: subscriptions, dues
.027	Disciplinary measures, suspension, etc.
.028	Various administrative problems affecting members ≙ 35.078
.03	Funds, property, assets generally
.035	Movables ≙ 347
.036	Fixtures ≙ 347
.04	Administrative and executive organs. Direction
.041	Terms of reference, authority and power
.042	General assembly
.043	Administrative organ, council and committees .043.1/.6 each ≙ 06.02
.1	Sponsors or patrons
.2	Honorary committees
.4	General council or governing body
.423	Appointment or election
.5	Management committee(s)
.6	Consultative advisory committees
.044	Executive organs, boards, bureaux and officers .044.1/7 each ≙ 06.02
.1	Appointment or election. Rights and duties
.2	President. Chairman
.3	Vice-president. Vice-chairman
.4	Secretary
.5	Treasurer
.6	Other executive officers
.7	Members of the executive committee
.045	General committees or commissions, e.g. selection and disciplinary boards

06.046	Direction. Secretariat and staff → 06.08
.1	Organization, division of staff functions
.11	Directorate. Director-general
.12	Deputy directorate. Associate or deputy directors
.126	General secretariat
.13	Departmental or branch direction. Heads, assistants
.2	Office(s). Headquarters (HQ)
.047	Finance organs, committees. Budget. Accounts
.048	Other administrative or executive organs
.2	Publicity. Public relations
.6	Co-operation with other bodies (joint committees, etc.)
.049	Scientific and technical committees
06.05	Activity of the organization (in general)
.051	General activities. Current work. Programme of work
.052	Decisions. Resolutions. Voting and ballots
.053	Meetings and conferences
.2	Notice of meeting. Invitation
.3	Agenda
.4	Preparatory documents. Papers for discussion
.5	The meeting and its conduct: procedure, order
.52	Communications, speeches
.53	Discussions, exchanges, explanations
.56	Translation, interpreting (simultaneous, consecutive) → 355.343.18; 356.362; 380.835
.6	Motions proposed. Resolutions, decisions
.7	Reports of meetings. Minutes. Proceedings
.8	Extraordinary meetings or sessions
.054	Oral or verbal communications. Conversations
.055	Publications, reports relating to work
.1	News bulletins, reports, etc.
.2	Collections of printed contributions published regularly

06.055.5	Annual reports → 058
.6	Memoirs. Collections
.8	Publications by members
.056	Distribution of benefits (financial, etc.) to members
.057	Special services, reductions, reliefs for members
.058	Services to the public: money, goods, information
.06	**Competitions, exhibitions. Examinations and other technical activities**
.063	Competitions
.064	Exhibitions → 061.4; 069
.066	Diplomas, certificates, testimonials
.067	Examinations. Tests
.068	Distribution of prizes and rewards
.07	**Social, display and promotion activities**
.072	Custom and ceremonial
.073	Processions and pageants
.074	Presentations. Performances. Stage shows
.075	Other demonstration or display activities
.076	Visits. Excursions
.077	Receptions
.078	Festive occasions. Banquets, dinners, concerts, dances
.08	**Staff: duties, conditions of work, etc.** ≙ 35.08; → 06.046; 061 - 05
061	**CORPORATE BODIES. INSTITUTIONS. EXHIBITIONS,ETC.**
(100)	International bodies
(4/9)	National bodies
-05	Persons (age, sex, etc.) → 06.08
061.1	**Official bodies. State institutions**
.12	Academies
.14	Offices

061.2	Private and semi-official institutions. Societies. Public utility companies
(100) : 002	Fédération Internationale de Documentation(FID)
.25	←Federations. Associations
.27	Foundations
.28	Working societies (Arbeitsgemeinschaften)
.3	Congresses. Conferences. Conventions. Assemblies
.4	Exhibitions. Temporary shows, fairs, etc. → 06.064; 069; ~~659,~~ 659.152; 7.091
.41	International exhibitions, world fairs
.42	National exhibitions, shows or fairs
.43	Special exhibitions, trade shows, industry fairs
: 629.113	Automobile or motor industry shows
(100)	International trade or industry shows
(4/9)	National trade or industry shows
.46	Mobile, travelling exhibitions
.47	Fairs, bazaars, etc. (without industrial aims)
.48	Exhibition, demonstration of particular objects
.5	Business houses and concerns. Firms. Companies Divide by (4/9) and/or A/Z and/or by :... → 658
.6	Research institutes. Experimental stations, etc.
: 62	Engineering and testing stations, laboratories,etc.
.61	Institutes of a general character
.62	Research and experimental establishments
.64	Control and testing institutes or stations
.66	Consulting and advisory institutes → 002.6
.7	Public functions (festive, solemn, inaugural, etc.) celebrations, ceremonies, receptions, performances, concerts, fetes → 361.72; 394; 791
.75	Commemorations. Jubilees. Inaugurations. Homage ceremonies, etc.

069 MUSEUMS. PERMANENT COLLECTIONS

(1-201)	Municipal museums
(1-4)	National museums
.01	Theory. Museography and museology
.013	Public museums
.014	Museums of establishments or societies for the public welfare
.015	University and technical college museums
.016	School museums → 371.65
.017	Private museums
.02	Special collections
: 5	Natural science museums
: 6	Technology museums
: 7	Art museums
: 92	Biographical museums
: 93	Historical museums
069.1	Aim, utility, educational function. Conducted visits. Lectures and discussion groups → 374.27
.12	Educational functions of museums
.15	External activities of museums: loans, excursions, (extension work)
.2	Premises. Accommodation and services in general → 628.8/.9; 697; 727.7
.23	Planning. Utilization of premises and space. Accommodation
.27	Special services
.271	Technical equipment. Workrooms. Laboratories. Stores
.272	Rooms and services for public
.29	Interior decoration
.3	Furniture. Equipment. Fittings → 645.4
.4	Establishing collections. Acquisition, preparation, preservation, cleaning, repair. Mounting, etc.
.41	Acquisition
.42	Collection and treatment of material

069.424	Collection of material → 579.6
.426	Treatment on arrival. Inventory, etc.
.427	Numbering of specimens
.44	Cleaning. Desinfection. Repair. Preservation → 579.8
.441	Cleaning
.442	Desinfection. Desinfestation (from parasites)
.444	Technique of repairs in general
.445	Mounting and arrangement 579.5
069.5	Collections. Objects exhibited
.51	Objects exhibited. Specimens
: 549	Minerals
: 571	Prehistoric finds
: 592/599	Animals
: 64	Household equipment, appliances, utensils
: 75	Paintings. Pictures
.53	Technique of exhibition
.532	Selective [illegible] or synoptic presentation
.533	Originals. Reproductions
.535	Neutral mounting without special display or decoration
.536	Mounting and display to create an atmosphere
.538	Catalogues. Guides
069.6	Management. Administration
.61	Administrative organization
.611	Organisation sensu stricto ≙ 06.01
.614	Administrative bodies ≙ 06.042/.044
.62	Rules and regulations for visitors. Relations with the public. Admission. Opening times
.63	Management. Staff ≙ 06.046
.64	Finances
.67	Decentralization of museums. Branches
.68	Relations with other institutions. Co-operation between museums

069.7	Publications Publications of a particular museum are classed under the number for that museum using the appropriate (0) auxiliary
.8	Research work → 001.891
07	NEWSPAPERS. JOURNALISM (Only for political newspapers, dailies, etc.) Subdivide by (4/9) and A/Z → 05
070	SIGNIFICANCE. MANAGEMENT
070.1	Principles and significance of the press. Relations to other professions
.11	Standards. Ethics. Influence. Responsability
.12	Endowed newspapers. Independence (from public opinion)
.13	Freedom of the press. Censorship → 351.751.5
.14	War censorship
.15	Subservience to special interests (party, business, etc.)
.18	Anonymous and secret newspapers
070.2	Ownership and control
(1-201)	of city newspapers
070.3	Business management
.32	Printing
.325	Frequency of issue: daily, semi-weekly, etc.
.327	Time of issue: morning, evening, successive editions, extras
.328	Format and numbers of copies printed
.33	Distribution. Circulation. Sale
.36	Advertising department → 659.1
.39	Offices and agents abroad

070.4	Editorial management
.41	General rules for editing. Order of contents. Journalistic style
.42	Staff. Editor. Sub-editors. Reporters. Correspondents. Division of work. Hours. Duties
.421	Editor. Chief editor. General editor(s)
.422	Reporters. Special editors. [illegible] [illegible]
.423	Special correspondents
.43	Individual sections
.431	News
.2	Press bureaux. Press agencies
.4	Official information, government handouts, etc.
.5	Foreign news
.6	Home news
~~2-~~	
.432	Editorials. Leading articles or leaders
.433	Local interest
.443	Business, finance, trade and economics
.445	Household, home and garden
.446	Sport and recreation
.447	Reviews
.448	Stories. Serials, etc.
.45	Voluntary contributors and correspondents. Letters to the editor
.46	Announcements. Coming events
.47	Special editions or numbers. Sunday editions. Supplement → 070.327
.48	Special kinds of newspapers
.481	Official gazettes
.482	Religious newspapers
.484	Foreign-language papers (e.g. for minority groups)
.485	Publicity and advertising newspapers
.486	Professional and technical newspapers
.487	Humorous (news)papers
.488	Literary (news)papers

08 POLYGRAPHIES. COLLECTIVE WORKS. VARIA

081 Collected works of individual or single authors

082 Collective works of several authors. Series, symposia, etc.

.1 Series. Publishers "libraries"

.2 Symposia. Anthologies

084 Pictorial or graphic matter. Illustrations, maps, posters, etc.
≙ (084)

086 Representations of specific shape or form (as documents)
≙ (086)

087 Publications for special readership, under special sponsorship

.2 Publications for specific readership (technical, etc.)

.5 Publications for children
→ (075); 372.4; 398.2; 82-93

.6 Popular works. Colportage literature

.7 Official and semi-official publications on events of general interest. Blue books, etc.

088 Miscellanies. Varia

09 MANUSCRIPTS. RARE AND REMARKABLE WORKS

090.1 Bibliophily. Bibliomania
→ 655.425

091 Manuscripts
→ 75.05

.1 Form of manuscript: tablets, rolls, codices

.2 Manuscripts according to writing materials
→ 003.51

.3 Various kinds: decorated, miniature, palimpsest

.5 Autographs. Autograph albums

.6 Printed works with manuscript notes ~~of~~ in the handwriting of celebrated writers

092 Xylographic books. Prints from blocks

093 Incunabula. Editions earlier than 1500 (incl. facsimiles)

094 Remarkable (precious, curious or rare) editions. Editions de luxe. First editions, etc.

.1 Very rare works more recent than incunabula. Typographical masterpieces. Books from celebrated printing presses. Limited or privately printed editions
→ 099.4

.2 Unique copies

.3 De luxe editions

.4 First editions

.5 Old books or editions of little or no value

095 Books remarkable for their binding

096 Books remarkable for the illustrations or materials used

.1 Rare illustrated books

.2 Works printed on precious materials

097 Ex libris. Marks of ownership or of origin

098 Various works remarkable for the nature of their content

.1 Banned or prohibited works

.11 Works banned by religious authorities
→ 241.73

.12 Works banned by civil (lay, secular) authorities

.3 Lost, supposititious and projected works. Books announced but never published

.5 Works with fictitious names for real persons

099 Groups of books distinguished by other special characteristics. Curiosa

.1 Books of abnormal size (huge or minute)

.2 Books that have realized a high price

.3 Books with autograph dedications
→ 091.6

.4 Books rare because of extrinsic circumstances. Books not for sale. Out-of-print editions, etc.
→ 094.1

.5 Books of value on account of their origin

1 PHILOSOPHY. PSYCHOLOGY

1 (091)	General history of philosophy (or at 19)
(A/Z)	Individual philosophers (or at 19)
101	Nature, scope of philosophy
.1	Nature of philosophy. Philosophy as science, as art
.2	Possibility and limitations of philosophy. How is philosophy possible ?
.3	Scope or range of philosophy
.8	Methods of philosophic thinking
.9	Role and vocation of the philosopher
11	METAPHYSICS → 21
111	General metaphysics. Ontology (being, existence)
.1	Concept of being (existence) , of primary substance (tode ti).
.3	Substance. Monad
.4	Accidents
.5	Relationships
.6	Acts. Activities or operations (energy)
.7	Created and uncreated being. The immaterial. Pure soul or spirit
.8	Transcendental characteristics of being or existence
.81	Distinction between being and its transcendental characteristics
.82	Unity. Non-existence. Plurality. Unity and indivisibility of being or existence
.83	Truth
.84	Goodness, kindness
.85	Beauty

113/119	Cosmology. Philosophy of nature
113	General laws of nature: transformation and transitoriness of substance or matter. Origin, creation, and development of the world → 291.217; 530.1
114	Space: internal and external place. Dimensions. Void and fullness. Infinite space. Oneness and plurality. Extension
115	Time: duration. Constituent of temporary duration, eternity, the world created ab aeterno. Relation between time and motion
116	Motion: development. Moving, transient, immanent, and remote action
117	Matter: transformation of matter. Primary matter. Substantial form
118	Force. Energy. Characteristics, accidents of inorganic substances
119	Quantity. Number. Continuous quantity, permanent and successive. Distinction from substance
122/129	Special metaphysics
122	Causality. Principle. Causa efficiens. Condition. Action. Effect
123	Freedom and necessity
.1	Freedom. Indeterminism. Chance. Necessity. Fatalism
124	Teleology
.1	Order. Chaos
.2	Idea. Thought
.3	Purpose or design. Entelechy
.4	Causa exemplaris. Ideal
.5	Value. Norm
.6	Destiny. Fate
125	The finite. The infinite, endless or limitless. The universe
13	PHILOSOPHY OF MIND AND SPIRIT Metaphysics of spiritual life
130.1	General concepts and laws
.11	Nature of spirit or soul
.12	Coherence and laws of the spiritual

130.121 Phenomenology and morphology of the spirit

.122 Evidence and comprehension of the spiritual

.123 Laws of the spiritual life

.2 Philosophy of culture: systems and spheres

.3 Metaphysics of the spiritual life

.31 The individual spirit

.32 The objective spirit (Hegel, Simmel, Sombart)

.33 The collective spirit. The world spirit

133 Occultism

→ 141.33; 159.961

.1 Concept and nature of the occult

.2 Supersensual experience. Initiation. Spiritual training

.3 Occult perception. Clairvoyance. Clairaudience. Augury
291.32

.4 Occult activity. Magic. Witchcraft. Theurgy
→ 291.33

.5 Occult sciences in the narrower sense

:54 Alchemy

.52 Astrology

.521 Theoretical astrology. Criticism. Methods

.522 Elements of astrology

.1 Traditional bases of astrology. Abbreviations. Symbols. Sigles

.2 Zodiac

.3 Planets

.4 Fixed stars and other astral factors

.5 Sublunary actions in general

.6 Celestial houses and their significance

.7 Aspects

.8 Sensitive points and other equidistances

.9 Position, dominance, etc.

.526 Astrology technique. Horoscope

.527 General interpretation and individual astrology (microcosmos)

.528 Universal interpretation (macrocosmos). Researches on world destiny

.529 Technique and interpretation of prognostic astrology

133.6	Chiromancy. Palmistry. Chirology → 159.925.7
.9	Spiritism → 159.961
14	PHILOSOPHICAL SYSTEMS Metaphysico-ontological speculations and theories
140	Possible philosophical systems. System typology
.8	World outlook. Philosophy of life
141	SPECIAL SYSTEMS AND STANDPOINTS → 165.6/.8
.1	Systems relating to the number and quality of the principles
.111	Monism
.112	Dualism
.113	Pluralism
.12	Materialism (ontological)
.13	Idealism (philosophic or metaphysical)
.131	Platonism. Neo-platonism
.132	Intellectualism. Universalism → 165.63
.141	Animism. Hylozoism. Panpsychism
.142	Voluntarism
.143	Alogism
.144	Monadism. Personalism
.145	Organicism
.151	Conditionalism
.152	Mechanicism
.153	Dynamism
.154	Energeticism
.155	Evolutionism
.156	Mobilism
.157	Finalism
141.2	Systems based on evaluation of the world and existence generally
.201	Problem of a criterion or norm of evaluation
.21	Optimism
.22	Pessimism

141.23	Meliorism
141.3	Special and mixed forms
.31	Scholasticism
.319	Neo-scholasticism
.32	Existentialism
.33	Philosophical mysticism → 248.2
.332	Theosophy
.333	Anthroposophy → 289.957
.336	Sufism
.338	Eclecticism. Syncretism
.339	Various esoteric schools
141.4	Systems relating to the problem of god and deity → 211
.41	Theism
.411	Polytheism
.412	Monotheism
.42	Deism
.43	Pantheism. Acosmism
.44	Panentheism
.45	Atheism
141.5	Systems relating to the soul and free-will → 159.947; 17.021.2; 237.2
159.9	PSYCHOLOGY → 301.151
-05	Persons: age, sex, etc.
159.9.01	Philosophy. Theories. Laws. Metaphysical and rational psychology
.015	Psychological theories based on exact sciences
.016	Various theories
.1	Body and soul
.12	Dualistic theories

159.9.016.13	Monistic theories
.2	Intellectual theories
.3	Psychomechanical theories
.4	Psychophysical theories
.5	Functional theories
.6	Psychological theories
.018	Generalities on psychological methods → 159.9.072
.019	Psychological systems and schools → 159.964.2
.2	Structural psychology
.3	Functional psychology
.4	Psychology of reactions
159.9.07	Experimental psychology. Research
.072	Research. Investigation. Experiment. Tests. Measures
.42	Individual investigations
.43	Collective investigations
.5	Methods of investigation
.52	Subjective methods. Introspection
.53	Objective methods
.533	Reaction method
.59	Various psychometric methods
.592	Progressive method
.593	Method of errors
.594	Method of equivalents
.075	Examination, significance, treatment of results
.078	Apparatus and equipment
159.91	PHYSIOLOGICAL BASIS. PSYCHOPHYSIOLOGY
	Nervous system. Structure and functions → 612.8; 613.8
.913	Mental hygiene

159.92	MENTAL DEVELOPMENT. CAPACITY. COMPARATIVE PSYCHOLOGY → 591.51
.922	Mental characteristics. Consciousness
.1	Sex psychology
.2	As influenced by environment
.23	Sense-impressions
.24	Topographical influences, landscape
.25	Climatic and weather influences
.26	Influence of place, of residence
.27	Influence of social circle, family, friends, etc. → 301.15
.28	Influence of clothing
.3	As influenced by heredity
.4	As influenced by race. Race psychology
.5	As influenced by physical condition
.6	As influenced by age
.7	Child psychology. Paedology (or paidology)
.72	Intellectual development of the child
.73	Spiritual characteristics and development
.74	Outlook, viewpoint of the child
.75	Drawings and paintings by children
.76	Abnormal children
.8	Psychology of adolescence and puberty (teen-agers) ≙ 159.922.7
.923	Typology. Individual psychology. Character. Personality types. Temperaments
.2	Development of character or personality. Self-consciousness. Identity; the "ego", self and other, self and body, the inner self, self as person, self and society
.3	Structure of the personality. Character traits. Psychogram
.4	Personality types. Temperaments
.423	Sanguine
.424	Choleric
.425	Phlegmatic
.426	Melancholic

159.923.434.2	Schizothymic
.4	Viscous
.6	Cyclothymic
.5	Cultivation of the personality
.924	Genius. Highly gifted or talented types
.2	Character traits of genius
.3	Genius as hereditary
.6	Genius as pathological
.62	Genius and insanity or madness
.64	Genius and vice
.7	Environment and upbringing of geniuses : family attitudes, parental profession, etc. → 376.54
.8	Types or [illegible] classes of genius
.925	Expression
.2	Physiognomy
.5	Phrenology. Character analysis by cranial (head) bumps
.6	Graphology
.7	Chirognomy. Palmistry → 133.6
.8	Mime, gesture, etc.
.928	Aptitude or [illegible] intelligence of different kinds
.22	General aptitude or capacity
.23	Special aptitude or capacity → 159.95
.929	Biopsychology. Plant and animal behaviour. Comparative psychology → 591.51
.93	SENSATION. SENSE PERCEPTION → 611.84/.88; 612.84/.88
.931	Vision
.932	Hearing
.933	Smell

159.934	Taste
.935	Touch. Feeling
.936	Muscular, articular and organic senses. Sense of equilibrium
.937	Perception
.2	Elements of perception
.22	Sensory perception
.23	Apperception
.24	Preperception → 159,954.3
.3	Illusory perception. Normal illusions → 159.961
.5	Special classes of perception: optical, time, movement
.51	Colour perception. Colour psychology → 535.64; 612.84
.511	Appearance of colours. Properties of colour sensations
.512	Attributes of colours: purity (hue), brilliance, saturation
.513	Nomenclature, names of colours
.514	Illumination or lighting colours, coloured glasses. Colour sensations in altered environments: localized colour, shadow perception, etc.
.515	Effects of individual colours: signal colours, congenial colours, spatial effect → 62-777.6
.5	Colour symbolization (grief, joy, etc.) → 264 – 037
.516	Effects of colours on each other. Psychological primary, secondary and complementary colours → 535.6
.52	Space perception. Localization of objects. Psychological optics, other than colour psychology
.522	Elements of space perception: distance, size, form, direction
.523	Sensory factors in space perception

159.937.53	Time (duration) and rhytm perception
.54	Movement perception
~~.7~~	
.7	Synaesthesia. Colour audition
.938	Psychophysics. Psychometry
.2	Psychophysics. Stimulus threshold, etc.
.21	Laws
.22	Principal formulae
.25	General classes of measurements. Stimulus threshold. Difference threshold
.3	Psychometry. Psychochronometry. Reaction times
159.94	EXECUTIVE AND MOTOR FUNCTIONS
.942	Emotions. Sensibility
.2	Characteristics: intensity, rhythm, duration, range
.3	Expression: laughing, crying
.4	Movements of different sorts
.5	States of emotion. Moods
.6	Sudden or violent changes. Pangs. Fits. Passions, rages
.943	Conation and movement. Motor functions. Action, motivation and drives. Instincts or urges
.5	Involuntary movements, twitching
.6	Innate, inborn tendencies. Tropisms, reflexes, instinctive movements
.7	Acquired tendencies. Habits, e.g. right - and left - handedness
.8	Voluntary, consciously controlled movements
.944	Performance. Work and fatigue
.946	Special motor functions
.2	Locomotion. Walking. Running
.3	Vocal expression. Talking or speech. Singing. Whistling. Aphasia, loss of vocal expression
.4	Graphic expression. Reading. Writing. Drawing

159.947	Volition. Will. Training of the will
.2	Free will. Consideration. Decision
.23	Responsibility
.24	Willed or voluntary decision. Determination
.3	Training the will. Self-discipline
.5	Intentions. Motive or inducement. Wish or desire
.95	HIGHER MENTAL PROCESSES
.952	Attention and inattention. Concentration
.1	Conditioning factors
.12	Objective, e.g. novelty, colour
.13	Subjective: interest, expectancy, resolution
.2	Varieties of attention
.3	Physical reactions
.4	Clearness and strength of attention
.5	Scope and duration
.6	Acquired inattentiveness. Lack of concentration
.953	Memory and learning. Mnemonic technique
.2	Types of memory
.3	Processes, e.g. association, reproduction, identification
.4	Aids to (development of) memory. Mnemonic technique
.5	Learning. Adaptation
.6	Failures of memory
.7	Exceptional memories
.954	Imagination. Creative power
.2	Imagination
.3	Fantasy, Caprice, whimsicality → 159.942.6; 159.961
.4	Forms of imagination or fantasy
.5	Limits of imagination process

159.955	Thinking. Thought. Judgment. Reasoning
.1	Conception (mental image, idea)
.2	Comprehension. Apprehension
.3	Abstraction. Selection. Comparison
.4	Reflexion
.5	Judgment. Decision
.6	Reasoning. Conclusion: inductive, deductive → 162
.956	Intuition
.96	SPECIAL MENTAL CONDITIONS. PSYCHIC PHENOMENA
.961	Parapsychology. Psychic and parapsychic phenomena → 133
.2	Hallucinations. Illusions. Visions. Apparitions
.6	Telepathy. Clairvoyance. Clairaudience → 133.3
.962	Hypnotism. Suggestion. Auto-hypnosis. Auto-suggestion
.963	Sleep, dreams, etc. → 612.82
.2	Sleep. Wakefulness. Sleepiness
.3	Dreams, nightmares, visions: interpretation
.5	Somnabulism. Sleep walking
.6	Sleep talking
.964	Depth psychology. The unconscious. The subconscious
.2	Psychoanalysis
.21	Explanation of mental processes: instincts, urges, complexes
.26	Psychoanalytic schools (A/Z)
.28	Applications of psychoanalysis
.3	Other types of depth psychology
.32	Psychologic school (Prince, Rivers, McDougall, etc.)

159.97	ABNORMAL PSYCHOLOGY → 616.89
.972	Mental disorders, aberrations, insanity
.973	Mental deficiency
.974	Hypochondria. Melancholia
.2	Hypochondria
.5	Melancholia
.975	Catalepsy
.976	Ecstasy
159.98	PSYCHOTECHNIQUE. Occupational ability testing, etc.
16	LOGIC. THEORY OF KNOWLEDGE. REASONING
160.1	Nature and role of logic 159.955.1/.3
161/162	FUNDAMENTALS OF LOGIC
161.1	Concept. Categories
.11	Concept: criteria and types
.111	Comparison. Differentiation. Abstraction
.112	Kinds of criteria: essential, inessential; intrinsic, extrinsic
.114	Kinds of concepts: individual, name, general
.12	Categories. Predicaments (modi essendi) e.g. Kant's categories
.13	Categoremata. Predicables (modi praedicandi)
.14	Range and scope of concepts
.15	Content: simple, compound and complex
.16	Ranks: coordinate, subordinate, subsumed
.17	Grammatical classes (parts of speech) → 801.2
.2	Judgment. Decision. Proposition or contention
.201	Theories
.21	Nature and structure: subject, predicate
.22	Kinds of judgment → 159.955.5

161.221.3	Assertions. Categorical judgment
.222	Content and quantitative judgments
.223	Qualitative judgments (affirmative, negative)
.225	Real judgments. Ideal judgment. Evaluation, praise, blame → 165.42
.226	Judgment interrelations and links
.25	Validity of judgments. Truth and falsity of propositions
.26	Form and degree of validity of propositions: apodictic, assertive, problematic
162	Conclusions. Argument. Reasoning and dialectic(s)
.1	Direct conclusions. Inferences
.2	Deduction. Syllogism
.3	Induction. Inductive reasoning
.4	Analogy
.5	Errors. False conclusions, arguments or reasoning
.6	Dialectic(s)
164	Symbolic logic. Logical calculation
.01	Nature and problems of symbolic logic
.02	Symbols, signs
.03	Functions. Argument. Statement. Links
.04	Axioms. Rules. Precepts → 165.17; 167.4
.041	Axioms, assumptions, premises
.042	Axiom systems
.043	Equivalences. Rules. Precepts
.05	Value of proposition or statement
.053	Decisive or critical problem
.07	Special, individual problems and theorems
.08	Applications
164.1	Logic of expression. Assertion
.2	Conceptual logic (predicate and class). Functions with one unknown
.3	Logic of relations and associations. Functional calculation. Functions with several unknowns

165 THEORY OF KNOWLEDGE. EPISTEMOLOGY. LOGICAL STANDPOINTS

.0	The problem of knowledge generally. Truth, correctness rightness. Error, falsity, wrongness
.1	Conditions, sources and types of knowledge
.12	Subject, object (of knowledge)
.15	Logical and teleological assumptions. Hypothesis. Norm
.17	The a priori element in knowing. Axioms. Ideas
.18	The empirical element in knowing. The thing in itself (Ding an sich). I or Ego. Perception
.19	Kinds of knowledge: mythical, scientific, intuitive, emotional
.2	Nature of knowing and understanding. Special criteriology
.21	Image. Symbolic representation
.22	Arranging, ordering. Unifying or integrating. Division
.23	Object, determination
.24	Special problems. Knowing oneself
.3	Object, scope and limits of knowledge
.4	Certainty and validity of knowledge
.41	Degrees of knowing: certainty, uncertainty or doubt, probability
.42	Range of validity: subjectivity, objectivity, value judgment → 161.225; 17.022.1
.43	Criteria of certainty: evidence, belief
.5	Value of knowledge

165.6/.8 Logical standpoints and trends

.6	According to origin, sources and types of knowledge
.61	Irrationalism. Mysticism
.62	Phenomenology (Husserl, Heidegger)
.63	Rationalism. Intellectualism
.64	Empiricism
.65	Criticism. Neocriticism
.7	According to value, range and limits of knowledge
.71	Dogmatism. Absolutism
.72	Scepticism. Nominalism

165.731	Positivism
.732	Agnosticism (Huxley, Spencer)
.74	Pragmatism. Humanism. Activism. Biologism
.741	Pragmatism (Peirce, James)
.742	Humanism. Hominism (F.C.S. Schiller)
.745	Biologism
.8	According to object and aim of knowledge
.81	Subjectivism. Illusionism
.82	Realism. Phenomenalism
.9	History of knowledge: from mythology to science
167/168	LOGICAL METHODOLOGY → 001; 005
167	Scientific investigation and inquiry
.1	The problem
.2	Analytical method. Observation. Experiment
.3	Synthetic method
.4	Axioms. Postulates
.5	Hypotheses. Utopian search. Discovery or invention
.6	Laws. Rules
.7	Scientific theory. Model. Problem: theory and practice
168	Scientific systematization → 005
.1	Definition
.2	Division. Analysis. Classification → 025.4
.3	Demonstration
.32	Direct demonstration
.33	Indirect demonstration
.35	Errors
.4	The system
.5	Systematic arrangement of the sciences
.51	Formal sciences
.52	Real sciences

168.521 Natural sciences

.522 Human sciences. Humanities. Social sciences

.53 Applied sciences (so-called). Technology

17 ETHICS. MORALS. CONVENTION

→ 241

.0 General problems and trends

.01 Concept, role, method of ethics

.02 Nature of morality and morals

.021 Objects of moral judgment

.1 Behaviour. Deeds and dealings

.2 Persons, individuals: character, way of thought, freewill, upbringing, etc.

.3 Social groups, group influences and pressures
→ 301

.022 Moral, ethical judgment and values

.1 Moral values: aesthetic, social, traditional, religious, etc. Status. Position. Fame. Honour

.2 Consequences of moral behaviour. Reward. Punishment

.023 Moral:code origin and content. Ethical principles or standards

.1 Reasonableness, good sense of human nature

.2 Logical principle. Categorical imperative

.3 Teleological principles

.31 The individual

.32 Social group: family, kin, ancestry or stock, people, nation, race, class, humanity

.33 Biological aims: life and survival, higher development, superman, etc.

.34 Joy. Happiness

.35 Use, welfare

.36 Perfection. Progress. Culture

.4 Sociological principles

.5 Material values: wealth, property, etc.

.6 Unity and diversity of moral principles. Conflict of duties. Casuistry

17.024 Sources of morality. Conscience. Feelings. Insight or discernment. Experience

.025 Commitment or reason for moral behaviour. Religious, state, society precepts

.026 Motives, impulses of moral conduct or behaviour

  .1 Egoism. Selfishness. Interest

  .2 Social impulses. Solidarity

  .3 Sympathy. Compassion. Pity

  .4 Respect of the moral code. Personal dignity or honour

.03 Moral or ethical standpoints and trends

.031 according to person's nature or condition

.032 according to origin of the morality. Intellectualism. Rationalism. Empiricism

.033 according to the basis of moral obligation. Authority. Autonomy

.034 according to the motives of moral conduct. Emotional, reflex, convictional morals

.035 according to the objects of moral conduct

  .1 Individualism. Egoism. Altruism

  .2 Universalism

  .3 Natural, historic entirety or complex

.036 according to the aims of moral conduct

  .1 subjective aims

  .2 objective aims

.037 Denial of moral obligations. Ethical scepticism. Amorality (neutralism). Immorality. Nihilism

.038 Moral indifference

171 General ethics. Individual morality. Moral conscience

172 Social ethics. Social morality

→ 30; 340.12

.1 The individual and the state

→ 321; 342.2/.3; 343.3

.12 Civic ethics. Civic obligations. Respect for law(s) and authorities

~~13~~

.13 Civic virtues, courage

172.15 Patriotism. Nationalism. Chauvinism. Jingoism

.16 Cosmopolitanism. Humanitarianism
→ 172.4

.2 Duties of authorities and of public servants

.3 Religion and the state. Liberty of conscience. Tolerance
→ 261.7; 272; 322; 342.72

.4 International ethics. Moral relations between peoples. Peace and war. Pacifism. Internationalism
→ 327.3; 341

173 **Family, domestic morals and ethics**
→ 176; 343.55; 347.6; 392.3

.1 Marriage. Matrimony. Permanence. Divorce

.2 Polygamy. Monogamy. "Free love"

.3 Married couples: mutual obligations

.4 Infanticide. Abortion

.5 Parents' obligations to their children
→ 179.2

.6 Children's obligations to their parents, brothers and sisters

.7 Family life

174 **Professional, business, industrial ethics and morality**

.4 Business morality. Success

.5 Speculation

.6 Gambling. Lotteries

.7 Contracts. Honesty. Deception, trickery

.8 Relations between employer and employed
→ 331.1

175 **Recreational ethics. Sportsmanship, etc.**
→ 79

176 **Sexual ethics**
→ 173; 343.54; 392.6

.1 Chastity, purity

.2 Celibacy

.3 Continence, sexual desire (moderation, excess)
→ 177.6

176.4 Perversions, inversions, deviations. Sadism
.5 Prostitution. Procuring. Public morality
.6 Adultery
.7 Ethics and art. Pictorial obscenity, etc.
.8 Ethics and literature. Pornography, etc.

177 **Ethics and social relations. Respect for fellow-men. Sociability. Humanity. Decency. Proper and improper conduct**
→ 179.7/.9

.1 Manners and breeding
.12 Good manners and breeding: Courtesy, chivalry
.14 Bad manners; coarse breeding, discourtesy, rudeness
.16 Honour
.2 Sociability: conversation, talk, gossip, rumour
.22 Good conversation and sociability
.24 Idle or malicious gossip, chatter, etc.
.3 Sincerity. Frankness. Truthfulness. Flattery. Defamation. Slander
.4 Luxury. Ostentation. Swank. Affectation. Pomposity
.5 Social inequality. Rank. Caste, class exclusiveness. Snobbery
.52 Caste or class feeling, exclusiveness
.54 Social snobbery, obsequiousness
.6 Love. Affection. Friendship
→ 173; 176.3
.61 Love. Affection. Fondness
.62 Coquetry. Flirting
.63 Friendship. Close companionship
.7 Humanity. Fellow-feeling. Sympathy. Devotion. Gratitude
.72 Philanthropy. Charity
.74 Sympathy. Pity
.75 Devotion. Sacrifice
.77 Gratitude. Thankfulness
.8 Misanthropy. Unsociability. Ingratitude
.9 Integrity. Fairness. Honesty. Dishonesty. Deceit
→ 177.3

178	Addiction, abstinence and temperance → 343.57; 613.8
.1	Alcoholism. Dipsomania. Drunkenness
.2	Total abstinence. Temperance
.7	Tobacco addiction
.8	Drug addiction: opium, cocaine and other narcotics
.9	Other intemperance or addictions
179	Various ethical and moral questions. Vices and virtues
.1	Press ethics and morals → 070.1
.2	Cruelty to children → 343.62; 362.7
.3	Cruelty to animals → 343.58; 351.765
.4	Vivisection
.5	Swearing. Oaths
.6	Heroism. Bravery. Courage. Cowardice
.7	Respect for human life. Duel. Suicide. Murder. Legitimate self-defence → 177; 343.61; 394.8
.8	Human ~~ve~~ vices, faults and failings. Pride. Vanity. Avarice. Jealousy. Anger, cruelty, etc. → 241.4
.9	Human virtues and good qualities. Modesty. Humility. Generosity. Patience. Diligence. Orderliness. Fidelity, etc. → 241.5
18.01	AESTHETICS AND TASTE (IN GENERAL) → 111.85; 7.01; 8.01
19	HISTORY OF PHILOSOPHY. Names by A/Z or use 1(091) and 1 (A/Z)

2 RELIGION. THEOLOGY

→ 124/125; 348

2-05 Persons engaged in religious life
= -05 (Aux. I.k)

21 NATURAL THEOLOGY. THEODICY

Philosophical, metaphysical speculation and reasoning

211 God. Deism. Theism. Atheism. Agnosticism

→ 141.4

.1 Proofs of the existence of God

.2 God: concept, divine being, existence, nature. Aseity. The supernatural in religion and nature. Universality of belief in God

.5 Scepticism. Atheism. Rationalism. Agnosticism. Freethought. Laicism. Secularism
→ 165.72; 273.8

212 Pantheism

→ 141.33; 141.43

213 Creation of the world. Evolution. Emanation. Eternity of the world
→ 113; 575

214 Providence. Predestination. Fatalism. Fate

215 Religion and science

Theology and philosophy. Knowledge and belief. Reason and revelation. Conflict of church and science
→ 234.2; 239

216 Good and evil

Dualism. Corruption of nature. Origin of evil. Justice and compassion of God
→ 141.112; 231.13; 233.2

217 Man's duty towards God

Divine service, cult, worship, prayer, sacrifice

.5 Individual rationalistic cults. Worship of the superior being, the goddess of reason. Theophilanthropists

218 The future life

Immortality. Eternity. Annihilation

219	Analogies. Harmonies. Anthropomorphism
22/28	THE CHRISTIAN RELIGION
22	HOLY SCRIPTURE. THE BIBLE
.01	Introduction to the Bible. Interpretation
.011	Canon. Index of the sacred books considered as canonical
.012	Inspiration
.013	Authors of the Bible. Authenticity, credibility of the Bible
.014	Textual criticism. Variants. Integrity. Versions
.015	Literary criticism. Sources of the biblical authors
.016	Historical criticism. Discussion on miracles and prophecies
.018	History of biblical interpretation
.02	Analyses. Synopses. Harmonies. Parallelism
.03	Indexes. Tables. Dictionaries. Concordances
.04	Original texts
.05	Translations
.06	Hermeneutics. Exegesis → 251
.07	Commentaries
.08	Propagation, liturgical use. Church rules for reading the Bible
.09	Biblical and scriptural history
221	Old Testament (in general)
222	Historical books → 229
-1	
.1	Pentateuch
.2	Joshua
.3	Judges. Ruth
.4	Samuel I and II
.5	Kings I and II
.6	Chronicles
.7	Ezra

222.8	Nehemiah. Tobias. Judith → 229.2
.9	Esther. Maccabees → 229.7
223	Poetical books → 229
.1	Job
.2	Psalms
.3	Wisdom of Solomon (Catholic classification)
.4	Ecclesiastes (Catholic classification)
.7	Proverbs (Solomon)
.8	Preacher (Solomon)
.9	Song of Solomon
224	Prophetic books
.1	Isaiah
.2	Jeremiah
.3	Lamentations (of Jeremiah)
.4	Ezekiel or Hesekiel
.5	Daniel
.6	Hosea
.7	Joel
.8	Amos
.9	Other minor prophets: Obadiah, Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah, Malachi
225	New Testament (in general)
226	Gospels. Acts of the Apostles
.2	Gospel according to St. Matthew
.3	Gospel according to St. Mark
.4	Gospel according to St. Luke
.5	Gospel according to St. John
.6	Acts of the Apostles
227	Epistles
228	Revelation of St. John
229	Deuterocanonical books. Apocrypha. Pseudepigraphia → 22; 223
.2	Tobit. Judith. Esther (supplements)

229.3	Wisdom (Solomon). (Protestant classification) → 223.3
.4	Ecclesiastes. Wisdom of Jesus Sirach (Protestant classification) → 223.4
.5	Book of Baruch. Epistle by Jeremy
.7	Maccabees I, II → 222.9
.8	Apocrypha or pseudepigraphical gospels
.91	Pseudepigraphia of the Old Testament
.92	Pseudepigraphical Acts of the Apostles
.93	Pseudepigraphical Epistles
.94	Pseudepigraphical Apocalypse
.95	Other recently rediscovered pseudepigraphia
.98	Pseudepigraphia of the Bible
23	DOGMATIC THEOLOGY
(091)	General history of dogma
230.1	Philosophical bases of dogmatics. General apologetics. Nature of Christianity
.11	Praeambula fidei
.111	Belief in a divine revelation
.112	Belief in the doctrine of a church. Grounds of belief
.2	The great schools and scholars of theology Divide by A/Z
231	God
.01	The Trinity. The three persons of the Godhead
.1	God the Father
.11	The existence of God. Proofs
.12	Nature of God
.13	Attributes: love, wisdom, justice, etc.
.2	God the Son → 232.2
.3	God the Holy Ghost. Paraclete
.5	The works of God
.51	Creation
.52	Divine providence

231.7	Divine laws. The Kingdom of God
.73	Miracles: places, cures, stigmata → 232.34
.74	Divine revelations. Vision and appearing of God
.75	Prophecies → 232.12; 232.35
232	Christology
.1	Messiah
.11	Messiah according to the Bible
.12	Messianic prophecies
.13	Expectation of the Messiah
.14	Genealogies of Christ
.2	Logos, the Word of God incarnate (Person, nature and divinity of Christ) → 231.2
.21	Pre-existence of the Word
.22	Divinity of Christ. Various doctrines on the Godliness of Christ
.3	Work of Christ. Redemption. Atonement
.31	The mediator. Intercession
.32	Priesthood. Sacrifice
.33	Teachings: sermons, parables
.34	Miracles → 231.73
.35	Prophecies → 231.75
.36	Example. Imitation of Christ
.37	Foundation of the Church
.38	Christ the King
.8	Humanity of Christ. Incarnation. Immaculate conception
.9	The life of Jesus Christ General biographies. His person, teaching, works, influence
.91	Annunciation
.92	Childhood
.93	The Holy Family
.931	Mariology
.94	John the Baptist
.95	The public life of Christ

232.96	The passion of Christ
.963	Crucifixion. Death
.964	Burial. Entombment
.97	Resurrection. Ascension
233	Man (dogmatics) → 159.9; 572
.1	Origin and fall
.11	Creation of man
.13	Paradise. Garden of Eden
.14	The fall. Nature of the original sin
.2	Actual sin. Sin of commission. Mortal sin → 216; 241.4; 248.13
.5	Man's nature. Soul
234	Soteriology. Doctrine of salvation. Redemption. Grace. Faith
.1	Grace. The doctrine of grace
.11	Actual grace
.12	Sanctifying grace. Justification
.13	The doctrine of merit
.14	The innate virtues (virtutes infusae) in general and from the dogmatic point of view → 241.5
.15	Gifts of the Holy Ghost
.2	Faith. The doctrine of faith
.21	Nature of faith. The natural elements and motives of the act of faith. The formal motive: the authority of God
.22	Necessity of grace for faith. Conversion
.23	Relationship of faith and knowledge, revelation and reason
.24	Rules of faith. Criterion of truth
.25	Revealed mysteries in general
.26	Religious doubt
.27	Sins against faith
.28	False doctrines: fideists, rationalists, semi-rationalists

234.3 Redemption. Plan of the Redemption

.4 Regeneration. Remission of sins

.5 Repentance. Penitence
→ 265.6

.9 Predestination and free will.

235 **Angels. Demons. Saints.**
Pneumatology. Demonology. Spiritual beings.
Creation and original state of angels

.1 Good angels. Doctrine of angels
Celestial hierarchy. Choirs of angels.
Archangels Michael, Raphael, Gabriel.
Relationship between angels and men.
Guardian angels

.2 Evil angels. Demons
Doctrine of the evil spirits. Fall of the angels.
The devil. Satan

.3 Saints. Canonized persons. Hagiology
The community of saints. Intercession of saints for men.
Patron saints. Veneration of saints, their images
their relics. Canonization. Beatification.
Apparitions

(Class here only dogmatic literature)
→ 264-11

: 92 Lives of the Saints, e.g. St. Urban

236 **Last things. Eschatology.**

.1 Death. Separation of body and soul

.4 Hell. Eternal pain. Eternal damnation. The damned

.5 Purgatory. The suffering Church

.7 Limbo

.8 Resurrection of the body. State of transfigured bodies

.9 End of the world. Antichrist. Last judgment

237 **The future life**
→ 218

.2 Immortality of the soul

.3 Conditionalism. Annihilation

238 **Expressions, confessions of faith. Creed**

.1 Systematic catechisms
→ 268

.2 Symbols. Articles of faith. Credos

239 Polemical theology. Special apologetics

Proofs of Christianity. Defence of the faith

24 PRACTICAL THEOLOGY. THE RELIGIOUS LIFE

241 Moral theology. Didactic theology

→ 17

.01 Casuistics. Casus conscientiae

.1 Human conduct

.11 Free will and freedom of choice

.12 Factors that endanger free will and freedom of choice: ignorance, fear, violence, cupidity, passion

.13 Morality of human actions
according to object, circumstances, aim

.2 Conscience

.22 Probabilism

.23 Laxism

.3 Laws

.33 The obligatory force of laws

.34 Excuses for non-observance of laws

.35 Interpretation of laws. Epikia

.36 Dispensation (from the laws)

.37 Discontinuance, expiry of laws

.38 Various kinds of laws
Class here only moral theological literature

.4 Sins

.41 Severity of sins. Mortal sins. Venial sins

.44 Capital sins. Haughtiness. Greed, Envy. Unchastity. Wrath. Intemperance. Drunkeness. Idleness

.45 Subject of sins. Sinner

.5 Virtues
→ 234.14; 248.145

.51 The theological virtues

.511 Faith

.512 Hope

.513 Love

.52 Cardinal virtues

.53 Moral virtues

241.6	The Decalogue or Ten Commandments
.61	The first, second and third commandments. Religious virtues
.62	The fourth commandment
.63	The fifth commandment
.64	The sixth and ninth commandments
.65	The seventh and tenth commandments
.66	The eighth commandment
.7	The Church's precepts
.71	Annual confession. Easter communion
.72	Abstinence. Fasting
.73	Forbidden books → 098.11
.74	Church rates or levies
.8	Obligations of the faithful, laity or clergy
.81	Obligations of the laity
.82	Obligations of the secular clergy. Celibacy. Costumes
.83	Obligations of the monastic community and regular clergy
242	Devotional writings. Meditations. Contemplations → 248.14
243	Prayers. Prayer books and Bible reading
244	Religious literature Novels, tales, stories of a religious character. Sunday-school books → 398.5; 82
245	Christian hymns. Sacred songs → 246.8; [illegible] 783.7/.9
246	Ecclesiastical art. Christian art and symbolism (exclusively from the religious point of view) → 7.046
.1	Byzantine and gothic ecclesiology. Altar-space. Sanctuary → 726
.3	Images, figures, icons in churches Veneration of images. Idolatry. Iconoclasts

246.5 Emblematic and cryptographic art. Emblems. Catacomb symbols. Death dances. Iconology. Christian iconography

.6 Symbolism (only general questions)

.7 The arts used for propagation of religion and the gospel

.8 Sacred music
→ 783

247 **Furnishing and decoration of churches**
→ 264-03; 7

.1 Font. Baptistery. Lectern. Confession box. Catafalque. Stations (of the Cross)

.2 Altar. Altar equipment. Utensils. Tabernacle. Credence, communion table

.3 Sculptures. Statues. Tombstones. Sepulchres. Icons. Organs. Small bells. Reliquaries

.4 Mosaics. Enamels. Windows, stained-glass. Lamps and chandeliers

.5 Religious frescoes and paintings

.9 Other church decoration. Crosses, crucifixes, banners, censers

248 **Personal religious life. Individual religious practice. Asceticism. Mysticism. Piety**

.1 Asceticism
Christian perfection: nature, scope, use, necessity. Commandments. Evangelical advice

.12 Individual religious practice for special classes of persons. Striving for perfection. Concept and nature of holiness or piety in general

.13 Obstacles in the way of perfection . Temptations. Passions. The world. Sin
→ 233.2

.14 Internal means of acquiring perfection
→ 242

.142 Self-understanding, knowledge of oneself

.143 Prayer

.145 Virtues
→ 241.5

248.15 External means of acquiring perfection

.151 Guidance of the soul

.152 Disciplined living

.153 Means to bring about divine intercession.
Castigation. Fasting. Vow of silence.
Pilgrimages

.154 Relations to fellow beings

.156 Confession

.157 Communion and Holy Mass
→ 265.3

.158 Use of sacramental rites and sacred objects.
Indulgences
→ 265.9

.159 Devotions

.2 Religious mysticism. Mystical theology
→ 141.33; 291.3

.21 Mystical apparitions. Visions. Charisma

.22 Diabolic imitations of divine mystic

.23 Human analogies or deviations from natural order.
Illusions, imposture, cataleptic and other
morbid states

.3 ← Personal worship, devotions. Meditation

249 Family or domestic worship. Family devotions

25 PASTORAL THEOLOGY
(The various functions of priests by: ...)
→ 266; 269

251 Homiletics
History and theory of the sermon
→ 8.085
≙ 252
Class here only theory and didactics,
the sermons are classed under 252

252 Sermons

.1 on episcopal and pastoral duties. Pastoral letters

.2 Controversial and polemical sermons

.3 Doctrinal sermons

.4 Sermons on religious practices: confession,
communion. Sermons based on liturgical cycle
(Advent, Lent, etc.)

252.5 Academic and religious instruction sermons

.6 Sermons for public occasions. Political and military sermons

.7 Sermons for special occasions: consecration, ordination, dedication, taking of vows, wedding, coronation

.8 Explanation and interpretation of Holy Scripture

.9 Commemoration, funeral and church festival sermons. Sermons on the lives of saints and on Saints' Day

253 Pastoral visiting. Cure of souls

Relationship between pastor and parishioners. Guidance of souls

254 Status, obligations of priests and ministers

Celibacy. Mutual aid associations for clergymen

.1 Nature of priesthood. Authority. Greatness

.2 Holiness of the priest

.3 Apostolate of the priest

.4 Professional training of priests

255 Brotherhoods or lay congregations of men and women

Class here only local brotherhoods.
→ 271

256 Lay societies created for parish work. Guilds, etc.

Class here only local societies
→ 061.2; 266.5; 267

257 Educational parish work and institutions.

Schools, libraries, etc.
→ 37

258 Church relief work and institutions.

Hospitals, homes, asylums, etc.
→ 361/362

259 Other pastoral works and duties

Church funds. Vestry board. Sexton. Parish secretary. Parish archives. Parish register

26/28 THE CHRISTIAN CHURCH AND CHURCHES

.01/.07 ≐ 06.01/.07
.08 ≐ 35.08

26 THE CHRISTIAN CHURCH

Class here only theoretical literature on the Church, its nature, doctrines, constitution and functions
→ 27; 28

260.1 Generalities on the Church and its constitution
.2 Members of the Church. The faithful. Church-goers
.3 Authority of the Church

261 Various influences and connections of the Church

Secular relations, social and moral responsabilities

.1 The Church and the Jews
.2 The Church and paganism
.3 The Church and barbarity
.4 The Church and morality
.5 The Church and spiritual development and education
.6 The Church and culture. Christian civilization.
.64 Moral rearmament. The Oxford-group (Frank Buchman)
.7 Church and State. State-established and free Churches. Religions freedom. Tolerance and intolerance. State religion. Protection of the Church. Suppression. Disestablishment. Unity of Church and State. Concordates. Ecclesiastical policy
→ 322

.8 Reunification of the Churches. World conferences of the Chureches. Irenics. Oecumenical aspirations
→ 262.5

262 Ecclesiastical government. Organisation of the Church

→ 348

.1 Church hierarchy and dignitaries. Ecclesiastical persons. Vicars, chaplains, priests
.11 Apostolic succession
.12 Episcopacy. Archbishop, primate, patriarch, exarch, bishop
→ 262.3

262.13	Papacy. The Holy See. Vatican. The Pope as sovereign
.131	Characteristics of papacy
.132	Temporal power of the Pope. Pontifical State
.133	Organization of papal duties
.135	Conclave. Election of the Pope. Consistories
.136	Organization of the Papal Curia. Commissions. Legates Cardinals
.1	Papal commissions or congregations Congregations of cardinals
.2	Offices. Chancellery. Record-offices
.3	Tribunals (Curia Justitiae)
.5	Legates. Nuncios. Apostolic delegations. Internuncios
.6	Cardinals
.7	Apostolical protonotaries
.14	Priests and clergy in general. The secular clergy. Ecclesiastical functionaries
.141	Vicars general. Archdeacons
.142	Canons. Dean and chapter
.143	Parsons. Rectors. Vicars
⊢.144	Curates. Coadjutors. Assistants. Preachers
.145	Chaplains
.146	Missionaries
.15	Deacons. Clergy in lower orders. Abbés. Acolytes, readers, etc.
.16	Ordination. Investiture
.18	Visiting preachers. Guest preachers
.2	Parish. Ecclesiastical province. Deanery. Parish church. Daughter churches
.3	Diocese. Office. See. Archbishopric. Bishopric. Metropolis. Collegiate church. Patriarchate. Exarchate. Primacy
.4	Particular councils and synods. National, local councils, synods, assemblies, diocese synods
.5	Oecumenical, world councils → 261.8
.8	Authority of the Church. Special jurisdiction. Free research in religion. Right of ministration of sacraments
.9	Ecclesiastical discipline, courts and processes → 348.5

263 **Sunday. Sabbath**

.1 The Jewish Sabbath

.4 Sunday observance (in general)

.5 Work on Sunday
→ 331.813

.6 Recreation on Sunday

264 **Liturgy. Public worship**

.0 Liturgies of various Churches and sects
→ ≙ 28

264-0 Liturgical questions. Forms and orders of services and prayers

-01 Sources of liturgy. Liturgical symbolics and language

-02 Personnel (minister, celebrant, etc.)

-03 Liturgical places, equipment and materials
→ 247

-031 Holy places. Churches. Temples. Oratories

-032 Altar

-033 Liturgical materials

-034 Paraments (linen)

-035 Liturgical lighting

-036 Liturgical vestments

-037 Liturgical colours

-039 Other liturgical equipment and materials

-04 Liturgical seasons

-041 The ecclesiastical year
→ 398.33

.1 Annunciation. Advent

.2 Christmas. Epiphany

.4 Lent. Ash-Wednesday

.5 Passion-Tide. Holy Week

.6 Easter time. Pentecost

.7 Time after Pentecost (Trinity, All Saints, etc.)

-042 Dedication of the hours of the day. Canonical hours. Time and hour of the mass

-043 Dedication of the days of the week. Saturday. Day of the Mother of God, etc.

-044 Dedication of the months, e.g. May, Month of the Sacred Heart

264-045 Anniversaries of the Saints
    Divide A/Z by names of Saints

-061 Liturgy of the mass. The mass. Protestant service.
    Mass for catechumens. Mass for the faithful

-062 Epenetic liturgy. Sacred office. Canonical hours.
    Matins. Laudes. Prime. Terse. Sext. None.
    Vespers. Compline

-063 Orations

-064 Litanies

-065 Prefaces

-066 Exorcisms

-067 Readings. Epistles. Gospels

-068 Sung, chanted prayers. Hymns. Psalms. Canticles

-069 Various prayers

-08 Paraliturgy

-1 Liturgical books

-11 Ecclesiastical calendars. Martyrologies
    → 235.3

-12 Missals. Sacramentaries

-13 Breviaries. Psalters. Diurnals

-14 Pontificals. Ordinals

-15 Ritual. Libri rituales

-16 Ceremonials

-17 Chant books. Hymn books. Antiphonaries. Graduals

-18 Agendas (ordiaries). Church notices. Banns. Ordos

-19 Other liturgical books

-2 Rites. Celebration. Observance and hierarchy of festivals

-3 Degrees of ceremonial: informal, solemn :
    spoken, chanted or sung

-4 Liturgical life

-7 Sacramental liturgy. Ritual
    → 265; 265.9

265 Sacraments

.011 Elements: substance, form

.017 Minister, priest

.018 Receiver

.1 Baptism

.2 Confirmation

265.3	Eucharist. Holy Communion. Mass
.31	Real Presence. Transsubstantiation
.32	Communion
.33	Sacrifice of the mass
.39	Non-catholic doctrines
.4	Holy Orders. Ordination
.5	Matrimony. Marriage → 347.62
.51	Engagement and marriage as contract. Indissolubility. Divorce
.52	Wedding-service
.53	Benediction or blessing of the bridal pair
.6	Penance. Confession. Absolution. Indulgences → 234.5
.61	Penitence. Contrition
.62	Confession
.64	Absolution
.65	Discipline and punishment, censure, excommunication, etc.
.66	Indulgences
.7	Extreme unction. Viaticum
.8	Ministry to sick and dead. Faith cures. Miraculous healings
.9	Sacramentals. Consecration. Benediction. Dedication of churches. Holy water → 248.158; 264-7
266	Home and foreign Christian missions Evangelization
.1	Halieutics or theory of missions
.3	Internal missions. Charity
.5	Catholic action → 256
267	Christian societies, associations → 06; 256; 362
.12	The Salvation Army
.2	Religious societies for men
.3	Young men's Christian associations. Y.M.C.A.

267.4	Religious societies for women
.5	Young women's Christian associations. Y.W.C.A.
.6	Religious youth societies
.7	for boys
.8	for girls
268	Catechization
	Sunday schools. Instruction for confirmation. Christian teaching. Children's services
269	Retreats. Revivals. Conversions
.5	Holy years (ordinary and extraordinary)
27	GENERAL HISTORY OF THE CHRISTIAN CHURCH → 22.09; 23(091); 28
271	Religious orders. Congregations
	Monastic orders. Monks. Nuns. Monasticism. Conventa. Abbeys. Monastic life. Hermits
	Divide A/Z by names, except those under 271.1/.5
-055.1	Men. Brotherhoods. Monks, brothers
.2	Women. Sisterhoods. Nuns, sisters
-1	Monastic vocation or calling
-2	Novitiate. Probation
-3	Vows
-39	Status of members of an order
-391	Lay-brothers. Lay-sisters
-393	Priests
-4	Rules. Regulations. Obligations
-5	Monastic government or control. Superiors, etc.
-6	Monastic discipline. Penitential acts
-7	Exercises of worship. Divine service. Choir
-8	Other practices. Intellectual and manual work. Gowns
-9	History. External influences. Apostolate. Missions
.0	Groups of religious orders
.02	according to activity or function
.021	contemplative, meditative orders
.022	teaching orders
.023	preaching orders

271.024	Knightly orders
.025	Mendicant orders
.026	Hospital orders
.1	Benedictines. Cistercians. Trappists
.2	Dominicans
.3	Franciscans. Capuchins
.4	Augustinians
.5	Jesuits (S.J., Society of Jesus)
.791	Anchorites. Hermits. Stylites. Recluses
272	Religious persecutions. Martyrs
.5	Organizations and groups hostile to the Church. Anti-Christian unions
273	False doctrines. Heresies and schisms
.1	Gnosticism
.4	Arianism
.7	Jansenism
.8	Agnosticism → 165.73; 211.5
276	The Church Fathers. Patristics
28	CHRISTIAN CHURCHES OR WORSHIPPING BODIES. Denominations. Sects
281	Primitive and Eastern churches
.1	Ancient church to time of Great Schism in 1054
.5	Eastern churches in general
.6	Armenian church
.71	Coptic church
.72	Ethiopian, Abyssinian church
.83	Syrian, Jacobinic church
.84	Maronitic church
.9	Orthodox-Anatolian church (Greek, Russian, etc.)
.91	Eastern patriarchates
.911	Constantinople
.912	Alexandria

281.913	Antioch
.914	Jerusalem
.92	Church of Cyprus
.93	Russian (orthodox) church
.94	Greek (orthodox) church
.95	Rumanian (orthodox) church
.96	Southern Slavic churches
.961	Serbian (orthodox) church
.962	Bulgarian (orthodox) church
.97	Georgian (orthodox) church
282	Western or Roman Catholic Church
283/289	Non(Roman)-Catholic churches or worshipping bodies. Protestantism
283	Episcopal national churches: Anglican Communion, American (Protestant) Episcopal Church
(42)	Anglican Church. Church of England
(73)	American (Protestant) Episcopal Church
284	Protestant churches (other than episcopal), including pre-Reformation and early Protestant Reformation movements
-1	Pre-Reformation reforming movements
(42)	Lollards
(437)	Hussites
(44)	Albigenses. Waldenses
.1/.2	Early Protestant movements and churches
.1	Lutherans and dissident sects
.2	Calvinists and dissident sects
.5	Huguenots. French reformed church
.6	Herrnhuter, Moravians
.8	Recent schisms in the Western (Catholic) church
.81	Old-Catholics
.85	German Catholics
.87	Liberal Catholic (theosophical) church
.9	Other (Protestant) movements and churches
.91	Arminians. Remonstrants

284.93	Walloon reformed church
.971	Pietism (Spener)
.98	Old-Lutherans. Lutheran free churches
.991	Free evangelical communities
285.1/.6	Presbyterian churches
.1	Presbyterians. Church of Scotland
.8	Brownists. Barrowists. Independants. (Later) Congregationalists
286	Baptists. Anabaptists. Mennonites. Adventists
287	Connexional churches. Methodists → 285.1
.98	Plymouth Brethren. Peculiar People
288	Unitarianism. Heshusians. Socinians. Antitrinitarians
289	Other (non-Catholic) bodies. Universlists, etc.
.3	Mormons (Latter Day saints)
.4	Swedenborgians
.51	Catholic-apostolic churches. Irvingites
.6	Society of Friends (george Fox). Quakers
.913	New-apostolical communions
.94	Churches advocating a metaphysical interpretation of Christ. Christian Science
.954	International Bible Student Association. Jehovah's Witnesses, etc.
.957	Anthroposophists (R. Steiner). Christian Communion → 141.333
29	NON-CHRISTIAN RELIGIONS AND CULTS
291	SCIENCE AND COMPARATIVE HISTORY OF RELIGIONS → 398
.1	Philosophy of religion → 141.4
.11	Nature. Definition of concept. Origin, development and future of religion
.12	Religious feelings: awe, veneration, submission, confidence, love
.13	Myth: constituent elements, growth, changes in form. Comparative mythology
.14	Classification of religions: monotheistic, polytheistic, mystic, based on revelations, etc. Religions of civilized and primitive peoples

291.15 Interrelationships of religions

.16 Attitude towards other religions. Tolerance. Religious syncretism

.17 Irreligion. Peoples without religion

291.2 Different doctrines. Dogmas

.21 Divinities. Object of religion. Worship. Myths. Functions of gods. The world of gods and spirits

.211 Manism. Animism. Spiritism. Fetichism. Totemism. Polydemonism. Taboo

.212 Naturism. Worship of the elements, personified objects and phenomena. Myths. Phallicism, etc.

.213 Worship of human beings, demi-gods, heroes, saints, monarchs (apotheosis), ancestors, dead

.214 Gods

.216 Demons. Evil spirits. Demonolatry
→ 133.4; 391.33

.217 Cosmogony. Strife among gods, and between gods and men. The end of ~~the~~ the world

.218 Idols. Images. Idolatry

.22 Doctrines on man and his soul

.23 Eschatology, (re)incarnation, immortality. Conceptions of the future life

.24 Obligations of the divinity towards men: idea of assistance and salvation

291.3 Worship. Practices. Liturgy

.31 Prayers. Praying wheels. Hymns. Religious dances

.32 Means of foretelling the secrets of the divine will: divination, omens oracles, prophecies
→ 133.3; 398.7

.33 Means of directly influencing the divine will: witchcraft, magic, evocation of the spirits, charms, amulets, talismen
→ 133.4; 398.4

.34 Means of indirectly influencing the divine will: offerings, sacrifices, ritual murders, vows, penances
→ 392.2

.35 Sacred places, shrines, etc.

.36 Sacred times. Festivals, calendars

.37 Religious ceremonies. Symbolism. Mysteries. Pilgrimages. Processions. Rituals. Emblems

291.4 Religious life. Ascetism. Devotion

291.5 Religious morality and law. Requital, etc.
Precepts, tenets, ideals, duties

291.6 Religious organizations. Holy personages. Prophets

.61 Representatives of divinity (Incarnation, Messiah, etc.)
.62 Persons endowed with supernatural power
(Witchdoctors, etc.)
.63 Divinely inspired men (prophets, mahatmas, etc.)
.64 Interpreters of divinity
.65 Religious associations and orders
.66 Religious parties
.68 Schisms. Dissidents

291.7 Actions inspired by religious motives.

Fanaticism. Religious wars. Mission.
Persecution

.8 Sources of religion

Sacred literature. Oral tradition.
Ecclesiastical decisions

292 ANCIENT GREEK AND ROMAN RELIGIONS. CLASSICAL MYTHOLOGY

.11 Greek religions and mythology
≙ 291
.21 Roman religions and mythology
≙ 291

293 EARLY GERMANIC, SCANDINAVIAN AND BALTIC-SLAV (WEND) RELIGIONS AND MYTHOLOGIES

.11 Germanic and Scandinavian religions and mythologies.
Eddas, sagas
≙ 291
.21 Wend or Baltic-Slav religion and mythology
→ 299.18

294 BUDDHISM AND SIMILAR RELIGIONS (OF INDIC ORIGIN)
→ 299.1

.11 Vedism
≙ 291, e.g.
.112.14 Indra. Agni
.116.1 Brahmins
.118 Vedas. Rig-Veda
.2 Pre-Buddhist Hinduism. Brahminism
→ 294.51

294.3 Buddhism
→ 299.52

.311 Southern Buddhism
≙ 291, e.g.
.23 Nirvana
.61 Buddha Sakvamuni. Fo
.321 Northern Buddhism. Lamaism
≙ 291
.35 Jainism
.37 Caodaism (reformed Buddhism)
.38 Western Buddhism. Zen Buddhism

294.51 Hinduism. Neo-Hinduism
→ 294.2
≙ 291, e.g.
.512.14 Brahma, Siva, Vishnu, Krishna
.527 Yoga (Patanjali)

295 MITHRAISM, ZOROASTRIANISM, ETC. (OF IRANIC ORIGIN)
→ 299.1

.1 Philosophy, doctrines, practices (in general)
≙ 291
.21 Pre-Zoroastrian cults. Mithraism (Magi)
.4 Zoroastrianism (early, original). Mazdaism
≙ 291, e.g.
.48 Avesta or Zend-Avesta (Bundahish)
.6 Parseeism (modern Zoroastrianism)
.7 Masdasnan (Dr. Hanish)
.8 Bethkachis

296	JEWISH (ISRAELITE) RELIGION. JUDAISM → 299.24
.1	Philosophy, doctrines, practices (in general) ≙ 291, e.g.
.18	Talmud. Torah. Mishnan. Gemara. Nebim. Ketubim → 221
.5	Nasiraeans
.8	Modern (Israelite) sects and movements
297	ISLAM. MOHAMMEDANISM Sunnites: Hanafis, Shafiites, Malikis, Hanbalites. Shiites. Wahabis. Ismaelites. Ibadites → 299.27
.1	Philosophy, doctrines, practices (in general) ≙ 291, e.g.
.17	Mohammedan action
.18	Sources: the Koran
.7	Babism
.8	Baha'ism
298	VARIOUS EUROPEAN (NON-CHRISTIAN) CULTS Antoinism. Martinism
299	VARIOUS RELIGIONS OF THE WORLD
.1	Aryan religions → 294; 295
.16	Religion of the Celts. Druidism. Neo-Druidism
.18	Religion of the Slavs → 293.21
.2	Various Semitic religions
.21	Aramaean religions. (Sumerian, Babylonian, Assyrian)
.23	Syrian religions. Essenian. Drusean
.24	Ancient Israelite religion (Hebrews) → 296
.26	Phoenician religion
.27	Pre-Islamic Arabic religions → 297

299.28 EThiopic religion

.3 Ancient Hamitic and Egyptian religions

.4 Religions of Turanian and Ural-Altaic peoples

(Finns, Mongols, Magyars, Samoyeds, Tartars, Siberian tribes, Lapps)

299.5 Chinese and East Asian religions

(except Buddhism, q.v. 294)

.51 Chinese religions

.511 Religions of the ancient Chinese dynasties
≙ 291

.512 Confucianism
≙ 291

.513 Taoism. Laotse
≙ 291

.52 Shintoism and other Japanese religions
≙ 294.3

299.6 African religions and cults

(Bantus, Kaffirs, Hottentots, Bushmen, Bassutos, Berbers, Gallas)

299.7/.8 American (Indian) religions

.7 North and Central America
.73 North American Indians (Pueblos and Plains Indians)

.77 Central American peoples
(Mexicans, Aztecs, Mayas, Toltecs, Zapotecs, Chorotis)

.8 South America Indians
(Native tribes before Columbus, Caribans, Incas, Peruvians, Chibchans)

299.9 Malayan and Polynesian religions

(Australians, Papuans, Melanesians, Malayans, Micronesians, Polynesians)

.991 Religions of prehistoric peoples

.992 Religions of primitive peoples

3 SOCIAL SCIENCES

3-05	**Persons**
	≙ -05 (Aux.table k.), e.g.
-052	Grade, type of service, employment conditions, payment
-053	Age (either sex)
.2	Children (in general)
.8	Adults
.9	Old people
-054	Race or people
	Divide by (3/9) Place or country, and/or by (=...) Races (Aux.table I.e.)
-055	Sex
.1	Males. Men
.2	Females. Women
-056	Physical and mental constitution
.2	Physical condition: healthy, ill, handicapped
.3	Mental condition : healthy, ill, handicapped
-057	Occupation and employment
.2	Manual workers
.3	Clerical, administrative, office workers
.4	Professional workers
-058	Social status, class, family circumstances
3.01/.096	**Nature. Conditions. Influences. Changes**
	≙ 34.01/.096, e.g.
.07	Administrative bodies. Authorities. Official organs.
	Divisions under 35.07 applicable throughout class 3
.071	Foundation, establishment. Development
.072	Relations with other bodies
.076	Duties, prerogatives. Competence
.08	Personnel. Public servants. Officials
	Divisions under 35.08 applicable throughout class 3
.083	Duties of officials or personnel
.085	Authority, competence, duty and functions
.086	Responsibility of officials or personnel

30 SOCIOLOGY. SOCIOGRAPHY

→39

301 **SOCIOLOGY**
→ 343.97; 581.55; 591.55

:311.2 Sociometry

.01 Nature and aim of sociology. Establishment of facts. Systematic arrangement. Psychological basis and historical development of the phenomena of human community life and groups

.03 Subject-matter, scope and limits of sociology

.08 Methods of sociology

.085 The social reality: situation, constraints, compulsion; social attitude, conduct and behaviour

301.15 **Sources and motives of social phenomena and change**

.151 Social psychology. Socially important characteristics or qualities of individuals. Instincts

.1 Psycho-corporeal qualities, e.g. blood ties

.2 Spiritual qualities in general

.3 Preservation instincts (individual and group)

.4 Impulses of the will. Ambition. Power urge

.5 Instincts of feeling, emotion and sentiment

.52 Sympathetic instincts. Herd instinct

.53 Protective instincts(towards women, children, etc.) Instinct to help and protect the weak

.55 Antipathy instincts. Sarcasm. Mockery

.56 Anti-social instincts or impulses. Criminal instincts

.58 Asocial instincts. Solitarism. Aloofness

.6 Spiritual instincts or qualities (of the mind). Intellectual instincts. Cultural instincts

.7 Instincts of order. Orderliness. Tidiness

.152 Group consciousness. Collective consciousness or will. 'We' or 'us' consciousness. Ideology
→301.182

.4 Political ideology
→32

.153 Socially important means of influence. Norms. Reactions. Defence and pressure means. Convention. Public opinion

.154 Aspirations (individual and group) of importance for social phenomena

301.16 **Social relationships**

.161 The socially important environment. The social circle.
The social milieu. Home (familiar). Foreign (strange)

.162 Relationships according to their direction

.1 Approach or nearness, closeness, liaison, contact, harmony,
Co-operation, Alliance, Solidarity, Union .

.2 Separation or distance, Avoidance, Antagonism, Conflict
:355 Sociology of war

.3 Mixed or combined approach-separation tendencies.
Isolation. Dependence. Tolerance. Rivalry

.163 Relationships according to number of persons involved

.2 Influence of quantity on social phenomena

.3 One-sided, unilateral relationships, e.g. with the
unknown, or between the living and the dead

.4 Many-sided, bilateral and multilateral relationships.
Trilateral or triangle relationships

.164 Relationships according to their action or influence:
direct or face-to-face, indirect

.165 Relationships between groups and individuals: between individuals, inter-group and individual-group relations

301.17 **Social processes. Group formation**

.171 Action and inaction in the social process.
Activity. Passiveness, inertia, 'laisser-faire'

.172 Differentiating processes. Individualism. Domination.
Subjection. Formation of social strata. Leadership

.6 Leadership, obedience and loyalty

.173 Integrating processes. Common experience or tradition.
Conformity and (uniform) type formation.
Stabilization. Socialization and social control

.174 Disintegrating processes. Social dissociation and decomposition
factors. Exploitation. Corruption. Commercialism

.175 Transforming processes. Incorporation. Increased organization.
Emancipation. Rationalisation

301.18 **Social formations, range or scope. Groups. Communities**
= 323.3

.181 Groups according to their origin and mode of influence
(in general)

.182 Incoherent, transitory, unorganised formations or groups.
Crowd. Mob. Mass (society). Hoi polloi
= 301.152

.183 Numerically small formations or groups.
Troop, company, band, circle

301.184	Abstract formations or groups, not delimited in place and time, e.g. the world of sport, the 'best' people
.185	Organically developed formations or groups. Community
.1	Blood-relationship or kinship groups. Consanguinity. Race. Tribe. Clan. Caste. Family, etc.
.2	Local communities. Environmentally conditioned groups
.3	Contemporaneous groups: same generation or age group
.4	Intellectual and ideological communities. Friendship
.186	Rational, organized formations or groups. Society in the strict sense
.1	Regulated formations, e.g. army or navy, civil service, school and university
.2	Voluntary formations; e.g. Co-operatives, unions, brotherhoods or fraternities
.188	Formations or groups according to scope, content, aim and power relations
.1	Economic, industrial groupings: management and labour
.2	Political groupings, e.g. parties, alliances
.3	Sociable groupings: clubs, etc., e.g.
:79	Recreation, games and sports
.4	Intellectual, spiritual groupings
.5	Methodical groupings: socially regulating, etc. Sociology of the State
301.19	Sociological systems, standpoints and trends Individual sociologists and schools
(091)	History of sociology
.192	Mechanistic trend: mechanists, physicists, energeticists and mathematical sociologists
.193	Synthetic and geographical trend
.194	Biologically oriented trend: organicists, race-theorists, demographists and instinctivists
.195	Sociologistic trend. Pure and materialistic sociologism
.196	Psychologistic trend: introspectivists, behaviourists
.199	Individual sociologists and schools of thought Divide by :... or A/Z

304	SOCIAL QUESTIONS IN GENERAL. SOCIAL REFORM. PRACTICAL SOCIAL PROBLEMS AND SOCIAL POLICY → 308; 331; 335; 351.83/.84
.9	Various plans for improving the world
308	SOCIOGRAPHY. SOCIAL SITUATION. SOCIAL GEOGRAPHY. SOCIAL SURVEYS, e.g. 308(43) of Germany in the 18th cent. → 338 ; 908
(6-77)	Social situation and surveys of the developing areas of Africa

31 STATISTICS

31 : 33	Economic statistics
: 338	Production statistics
: 343	Criminality statistics
: 63	Agronomy or agricultural statistics
311	STATISTICAL SCIENCE, THEORY AND METHOD → 519
.1	Fundamental statistical ideas
.11	The statistical quantity. The statistical unit. Scope. Characteristics
.12	Statistical grouping
.13	Sub-group. Qualitative and quantitative classification
.14	Averages. Weights. Index numbers
.141	Index numbers
.15	Distribution. Standard deviation. Quartile and percentile
.16	Correlation. Coefficient of correlation. Coefficient of variation
.17	Statistical analysis of complex movement phenomena
.171	Fluctuations. Short, medium periods
.172	Trend. Fundamental direction of a movement. Long periods
.174	Seasonal fluctuations. Annual fluctuations. Periodic fluctuations
.175	Changes in structure

311.2 Procedure and technique. Compilation of statistical tables

.21 Statistical research or investigation

.213 Types of research, investigation or enquiry

.1 Initial assembling of statistical material

.2 Sample methods

.3 Enquiry. Evaluation

.4 Single and continued researches

.5 Assembling of secondary statistical material

.6 Monographs and other methods not strictly statistical

.214 Re-examination of material. Reliability. Accuracy Systematic and accidental errors. Sources of error

.215 Formulae for accuracy. Formulae for correction

.217 Tabulation

.218 Graphical presentation. Diagrams, cartograms, histograms, stereograms

.219.1 ~~Actuality~~ Up-to-dateness of the published results

311.3 Organization of statistics. Official statistics

(492) General organization of statistics in the Netherlands

: 331.6(430) Organization of unemployment statistics in Germany

.311 International statistics

.312 National statistics

.313 Regional, county or provincial statistics

.314 Local, municipal statistics

311.4 Private statistics

.41 Statistics of organizations, associations, etc.

.42 Trade statistics

.43 Church statistics

312 DEMOGRAPHY. POPULATION (VITAL STATISTICS)

→ 30; 311.21; 323.3

312.1/.3 Movement of the population

312.1 Births. Natality

.11 Premature births

.12 Birth-control. Malthusianism. Neomalthusianism

312.13	Births according to parents' profession and social standing
.14	Male births. Female births Divide by -055.1 and -055.2
.15	Births according to [illegible], race, nationality, language Divide by -054 and/or =0/=9, (=)
.16	Multiple births. Twin births, etc.
.18	Births according to parents' age Divide by -053
312.2	**Deaths. Casualties. Mortality. Longevity**
.21	Statistics of still-born
.23	Mortality according to occupation or profession Divide by -057 and : 0/9
.24	Mortality according to sex Divide by -055.1 and -055.2
.25	Mortality according to race, nationality, language Divide by -054 and/or =0/=9, (=)
.26	Mortality through illness or accident
: 615.9	Mortality through poisoning
.27	Mortality through suicide
.28	Longevity statistics
.29	Tables of mortality
312.3	**Marriage statistics**
.36	Divorce statistics
.4	Celibacy statistics
312.5	**Household and family statistics**
312.6	**Physical condition of the population** Race, stature. Health and sickness statistics
.7	Statistics of public morals
312.8	**Population increase and decrease. Overpopulation Depopulation**
.81	Population growth
.82	Over-population
.83	Population shrinkage

312.84	Depopulation
.86	Reproduction rate
312.9	Population distribution and density
.91	according to birthplace or domicile Divide by (4/9)
.92	according to residence Divide by (1-2), etc.
.93	according to profession Divide by -057 and : 0/9
.94	according to sex Divide by -055.1 and 055.2
.95	according to race, nationality and language Divide by -054 and or =0/=9, (=)
.98	according to age Divide by -053
.99	according to religion, social standing, class, educational level Divide by : 2/3
313	STATISTICAL BASES FOR CERTAIN TYPES OF INSURANCE → 312.2; 368
.1	Statistics of accidents, sickness and their consequences
"..."	The time of accidents, e.g.
"414.22"	accidents during the night
"421"	accidents occuring on Mondays
-01	Types of accidents and sicknesses
-011	without regard to insurance
.1	accidents and sicknesses without permanent consequences
.2	accidents and sicknesses with permanent consequences
.3	deaths → 312.2
-012	sustained by uninsured persons ≙ 313.1-011
-013	sustained by insured persons ≙ 313.1-011
-02	Industrial accidents. Professional sickness ≙ 313.1-01
-03	Non-industrial accidents. Non-professional sickness ≙ 313.1-01

313.1-1 Number of accidents and occupational sicknesses

-2 Number of persons and working hours

-3 Number of enterprises

-4 Production. Number of machine hours. Production figures.
Transport performance

-5 Money value. Wages total. Bonus total

-6 Floor area

.04 External environmental influences
≙ 331.04

.05 Factors dependent on the employee
≙ 331.05

.12 Statistics of accidents insurances

.13 Statistics of sicknesses insurances

32 POLITICAL SCIENCE. POLITICS. CURRENT AFFAIRS

→ 341

32-05 Persons
→ (Aux. I.k.)

.019.5 Public opinion. Public relations. Propaganda
→ 659.4

: 654.19 Influencing, moulding of public opinion by radio and television broadcasting

.57 Illegal propaganda. Illegal agitation

321 THE STATE AND SOCIETY. FORMS OF POLITICAL ORGANIZATION

→ 308; 342

321.01 Theory of the State (in general)
Theory (philosophy) of power. State and territory.
Authority and opposition. Usurpation
→ 323.2; 342.1; 342.2

.011 Sovereignty

.013 Transformation of states. Territorial changes.
Partition of states
→ 341.218

.014 Transfer of power. Transfer of power to private organs
→ 342.32

.015 Division of power. Equilibrium of power
→ 342.33

321.02 **Forms of political activity**

.021 unorganized

.022 organized

321.1 **Original and historical forms of government**

.11 Fundamental forms of government. Family government. Patriarchy. Matriarchy. Chieftainship (tribes, clans), etc.
→ 301.185; 392.3

.15 Democracy of antiquity, of early times. Theocracy. Aristocracy. Oligarchy. Patriciate. Plutocracy

: 326 Slave-owner state

.151 Democracy of antiquity. Early, primitive democracy

.152 Theocracy

.17 Feudalism Suzerains. Vassals

.18 Despotism. Tyrany. Dictatorship (of individuals)in antiquity

321.6/.8 **Modern forms of government**

321.6 Non-democratic forms of government. Dictatorship in general

.61 Absolute monarchy. Absolutism

.64 Modern authoritarian regimes based on political and national movements. Dictatorship of a particualr party or group,
e.g. military dictatorship
→ 321.74

.65 Corporate states

321.7 Democracy
→ 328

.72 Parliamentary democracy. Constitutional monarchy. Republic

.74 Socialist democracy. The proletariat government (dictatorship). Soviet form of the socialist state. People's democracy

321.8 Supra-national forms of government
→ 341.232

322 THE STATE AND THE CHURCHES
Religious policy. Exclusion of laity.
Anticlericalism. Cultural conflicts.
The church performing the functions of the state
→ 172.3; 261.7; 342.731; 348

.2 Unification, separation of church and state

323 INTERNAL POLITICS. HOME AFFAIRS GENERALLY
→ 329; 342.71

323.1 National movements, tendencies. National minorities
→ 312.9; 341.012; 342.72

.11 Composition of the population according to nationalities.
Integration and segregation of races.
Extension of races, languages and nationalities

.113 Citizens and subjects abroad, e.g.

(=50) Italians abroad or overseas

.118 Racial segregation
→ 342.724

(680) in South Africa: Apartheid

.12 Movements against particular races, nationalities, e.g.

(=924) Anti-semitism

.13 Movements supporting certain races, nationalities.
Irredentism, e.g.

(=924) Zionism

(73):(=96) American (U.S.) Negro rights movement

.14 Nationalistic extravagances (chauvinism).
Racial superiority

.15 National minorities. Optants

.17 Autonomy and self-determination of nationalities.
Centralism. Unitarism

323.2 Relations between the population and state.
Internal stresses. Political action

.21 Collaboration, participation of the populace
in the state. Positive relationship of the citizen
to the state
→ 327.32

.215 National festivals and commemorations
→ 327.321

323.22/.28 Internal political actions
→ 323.4

.22 Critical attitude of population towards the state. Unrest. Discontent. Sedition

.23 Persuasion. Agitation. Demonstrations. Petitions

.232 Political enlightenment

.019.57 Illegal agitation

.25 Passive resistance, e.g. hunger strikes, consumer strikes, sit-down strikes, etc.

.26 Active campaign methods. Political boycott. Sabotage. Political strikes. Riots. Mutinies. Revolts
→ 331.892

.27 Revolutions. Revolts. Insurrections. Civil war. Putsch

.28 Political persecution. Terror and terrorist activities
→ 343.197; 343.301

323.3 Social strata, groups and classes. Professions
→ 301.18

.01/.06 Special auxiliaries for corporate bodies
≙ 06.01/.06

.31 Upper class. Nobility. Aristocracy

.32 Bourgeoisie. Middle-class. Peasantry. Independent professions

.33 Working class. Employee. Worker

.34 Slaves. Serfs

.35 Clergy

.37 Officials
→ 35.08

323.38 Class relationsips

.01 Class as a concept

.381 Class formations under capitalism

.1 Bourgeoisie

.2 Proletariat

.382 Class collaboration. Peaceful economic aspirations

.396 Social elite

.398 Demi-monde. Underworld. Criminal and undesirable classes

323.4 Class struggle. Class war

324 ELECTIONS

Campaigns. Plebiscites. Referenda
→ 324.8

325 MIGRATION. COLONIZATION. COLONIAL POLICY
→ 301

.1 Migration in general

.11 Settlement and migration within a country.
Internal migration. Settlement. Movements of population from country to town. Urbanization
→ 312; 338.922/.924

.14 Immigration. Immigrants. Immigration policy

(73:51) U.S.A. policy towards Chinese immigrants

325.2 Emigration. Emigrants. Emigration policy

.25 Emigration and emigrants. Expatriates. Exiles.
Evacuees. Displaced persons. Refugees

:2 on religious grounds

:32 on political grounds

:572.9 on racial grounds

.252 Voluntary

.254 Compulsory. Deportation and deportees

.27 Repatriation

.29 Transit migration (emigration after immigration)

325.3 Active colonization. Colonial policy(of mother country)

.35 Colonial administration by mother country.
Representation of colonies in the motehr country, e.g. in parliament
→ 325.45

325.4 Passive colonization. Internal colonial policy

(44-5:6) Administration of the French colonies in Africa
→ 308

.45 Internal organization and administration of colonies and other non-sovereign territories.
Policy towards native subjects

325.452 Native governments and their administrative organs, e.g. native parliaments and councils

.456 Privileged and chartered companies: monopolies, concessions, trusts, cartels, syndicates
→ 338.8

.46 Colonial empires. Colonial imperialism. Colonial federalism
→ 325.8; 327.2; 337.92; 342.24

325.7 Opening-up of territories outside the Earth

325.8 Achievement of independence. Independence movements. Cultural emancipation
→ 323.2

326 SLAVERY
→ 323.34; 343.43

.1 Slave trade

.4 Fighting of slavery

.8 Abolition of slavery

327 INTERNATIONAL POLITICAL RELATIONS. WORLD POLICY. INTERNATIONAL POLICY. FOREIGN POLICY
→ 172; 341

327.2 Imperialism. Imperialist policy
Political expansion tendencies
→ 325.3; 325.46

327.3 International movements and aspirations
→ 271; 329.7; 369

.32 Workers' international solidarity. International Labour Day

.323 International collaboration in the workers' movement
  .1 First International
  .2 Second International
  .3 Communist international movements. Comintern. Cominform

.33 Movements for mutual rapproachment between peoples

.35 Unification movements on political grounds, e.g. irredentism

.36 Movements for the establishment and maintenance of peace between peoples. Pacifist movements
→ 172.4
  -05 Conscientious objector

327.37	Disarmament movements. Moral, economic and physical disarmament → 341.67; 355.019
.39	Movements for unification on language, race, religious, geographical or other bases → 323.1 Divide by (4/9), (=), :, e.g.
(6)	Pan-Africa movement
(=81)	Pan-Slavism
: 297	Pan-Islamism
327.5	International tensions and sources of conflicts. Relaxation of tension
.51	Formation of blocs. Military convenants and pact systems as sources of conflicts. Committed part of the world → 341 Divide by (1-1), (=), e.g.
(1-11)	East bloc
(1-15)	West bloc
(=9)	Coloured bloc
.54	Cold war
.55	Attempts at balance between the power blocs. Non-committed countries. Uncommitted part of the world
.56	Relaxation of tension in the political situation. Settlement of international conflicts
: 341.6	by means of international arbitration
.57	Peaceful co-existence
.58	Nationals and citizens abroad or overseas. National minorities and optants as a foreign policy problem
327.7	Activities of international and multilateral organizations → 341.1; 341.24
327.8	Political pressure on other states
.82	Diplomatic pressure
.83	Political pressure of non-government organizations and institutions, e.g. through the International Federation of Trades Unions, through the Churches, etc.
.84	Secret services. Espionage → 355.40
.88	Subversive activity. Political intrigues. Penetration. Fifth column. Diversion

328 PARLIAMENTS. POPULAR REPRESENTATIONS. GOVERNMENTS

→ 321.7; 342.53

328.1	Composition of parliament
.12	Formation of a parliamentary majority
.122	Parliamentary majorities
.123	Parliamentary minorities. Opposition. Obstruction
.124	Formation of political groups; also agricultural, economic, clerical and other groups
.126	Splinter groups
.13	Cabinets
.131	Cabinet formation. Head of the government. Prime minister. Minister-president
.132	Types of cabinets. Types of governments
.2	Majority cabinets. Majority governments
.3	Minority cabinets. Minority governments
.4	Coalition cabinets. Coalition governments
.5	National cabinets. National governments
.6	Extra-parliamentary cabinets. Extra-parliamentary governments
.7	Royal cabinets. Presidential cabinets. Presidential governments
.16	Cabinet crises. Government crises. Parliamentary crises
.17	Resignation and dissolution of cabinets and parliaments. Retirement and removal of members of cabinet and parliament. Laying-down of mandates
.18	Relationship of parliaments and governments with the public
.181	Influence of the public on parliaments and governments
: 07	through press
: 654.19	through radio and television broadcasting
.182	Influence of social and economic groups on parliaments and governments
.183	Influence of political parties on governments
.184	Influence in the public galleries. Lobbying
.185	Corruption
.188	Influence of members of parliament on economics and administration. Patronage. Nepotism

328.3	Functions of parliament
.32	Shaping of political will
.34	Legislative activities → 342.52
.36	Control over the government
329	POLITICAL PARTIES AND MOVEMENTS
	Parties can be classified according to their names, or, if available, the abbreviations of their names preceded by the common auxiliaries of place. Further possibilities of subdivision are provided by the common auxiliaries of time, e.g.
(410)Labour	Labour Party (Gt. Brit.)
(430)SPD	Sozialdemokratische Partei Deutschlands
(438)PZPR	Polish United Workers' Party
(73) Democr.	Democrats (U.S.A.)
329: 0/9	Particular problems and interests of parties and movements
:333.3	Party of house- and land-owners
(-201)	Party within a municipality
.05	Position of parties and movements
.051	Government parties
.052	Opposition parties
.053	Splinter parties
.054	Satellite parties
329.1/6	Classification of political parties and movements according to their general viewpoints and aims
	In dealing with parties and movements whose several political viewpoints are to be expressed, the apostrophe (') may be used. The successive order of numbers attached by means of (') depends on the importance of the political viewpoints to be classified, e.g. 329.11'21 Conservative-monarchist basic outlook arising out of 329.11, 329.21 To classify parties by countries common auxiliaries of place should follow 329 , e.g. 329(45).15 Italian Communist Party
.11	Conservative basic outlook
.12	Liberal basic outlook

329.13	Progressive basic outlook. Revolutionary (radical) basic outlook
.14	Socialist, socialdemocratic basic outlook
.15	Communist basic outlook
.17	Nationalist basic outlook
.18	Fascist basic outlook
.21	Monarchist basic outlook
.23	Republican basic outlook
.272	Adherents of a federal state (Federalists)
.285	Anarchist basic outlook
.286	Nihilist basic outlook
.29	Adherents of a corporative state
329.3	Parties and movements with religious basic outlook
: 28	Christian basic outlook
: 297	Mohammedan basic outlook
.36	Parties and movements with anti-religious (atheist) basic outlook
329.4	Parties and movements with racial or linguistic aims, e.g. Apartheid
.61	Illegal parties and movements
.63	Parties representing special interests
329.7	Political and national movements and associations in various spheres → 369
.71	Political mass organizations, e.g. in people's democracies. Popular Front, National Front and others
.73	National movements in general
: 008	National movements for culture
.75	Soldiers' and veterans' movements
.78	Political and national youth movements Divide by -055.1 and -055.2
329.8	Party structure. Party strategy. Party tactics

33 POLITICAL ECONOMY. ECONOMICS

→ 38; 65

330.1 GENERAL PRINCIPLES, LAWS AND SYSTEMS

330.11 Economic phenomena and laws

.111 Definition of the economy

.112 Aim of economic management. Satisfaction of need. Realization of profit

.114 Types of economic development

- .1 Static economy
- .2 Progressive, expanding economy
- .3 Retrograde, contracting economy

.115 Econometry

330.12 Objects of economics. Wealth

.121 Principle of scarcity, shortage

.122 Gratuitous wealth

.123 Economic wealth

- .4 Consumption goods
- .5 Goods for use
- .6 Services
- .7 Capital goods

330.13 Economy. The economic principle. Utility. Value

→ 338.5

.133 Economic value. Utility value. Output value. Exchange value. Surplus value

.138 Theories of value

- .1 Objective theories of value. Theory of production costs. Theory of labour value
- .2 Subjective thories of value. Theory of limiting value
- .8 Theories rejecting value

330.14 **Capital**

→ 338.94

.141 Formation of capital. Accumulation
→ 336.72

.142 Form and type of capital. Capital investment
→ 336.767; 658.14

.144 Distribution of capital (national, international)

.148 Capitalism: early (beginnings), zenith, late (present-day)

330.15 **Natural factors. Natural wealth.**
Resources and productive forces

330.16 **Physical-psychological factors.**
Economic necessity and material needs

.163 Needs or requirements: kinds, elasticity, urgency

330.17 **Free and controlled economies**

.172 Free economy. Economic freedom. Liberalism.
Free competition

.173 Controlled economy

  .2 Private controls over the economy

    : 338.8 Control through cartels, trusts

  .3 State control. Planned economy.
  Compulsory (emergency, wartime) economy
  → 338.98

330.18 **Economic theories, schools**

.180 Problems of economic science: static, dynamic

.181 Economic thories of ancient and medieval times

.182 Mercantilism and other economic doctrines
of the 16th and 17th centuries
(Bullion school, Cameralistics, Colbertisme)

.183 Physiocratism and other economic doctrines
of the 18th century

.184 Classical school. Liberalism

  .1 The industrial system,
  e.g. Adam Smith, Malthus, Ricardo; Say; von Thünen

  .3 The liberal optimists,
  e.g. Cobden and the Manchester School

330.184.4 Moderate individualism,
e.g. Pierson

.6 Doctrine of free economy (Silvio Gesell)

.185 Ethical, romantic, historical and social-justice schools,
e.g. Sismondi, Spann, Max Weber, Sombart

.186 Theories based at least partly on revelation and intuition:
Solidarist, Christian, anthroposophic theories

.187 Theories built up by conventional (exact science) methods

.11 Theory of equilibrium. Lausanne School (Gossen, Pareto)

.12 Rational economic dynamics (Hicks).
Stockholm school (e.g. Myrdal)

.13 Experimental economic dynamics. Econometric school,
e.g. Tinbergen, Vinar, Oskar Lange

.2 Marginalism and neo-marginalism,
e.g. Wicksell, Walras, Jevons;
Viennese and French: Menger, von Mises,
Haberler, Pigou
Cambridge (welfare economy) and London schools

.4 Keynes and the Keynesian movement

.6 Technical economic theories. Technocracy

.188 Other schools, eg. Institutionalism (J.M.Clark)
and French inductive school (Simiand)

330.19 Development of the economy. Scale of the economy

.190 The pillars of the economy: consumer, business or
private enterprise, public utility

.191 Rudiments of the economy

.2 Village economy. Feudal system

.3 Urban or municipal economy

.4 District, provincial or regional economy

.5 National economy. State economy. Autarchy

.52 Autarchy. Self-sufficiency

.6 International economy. World economy

330.2 Co-operation in the economic sphere.

Reorganization, reform, etc.

331 LABOUR. WORK. EMPLOYMENT

→ 351.83/.84; 368.4; 658.3

331.05 Persons : youth, women, foreign labour, etc.

≙ -05 (Aux.I k.)

331.01 Theory of economic labour

: 159.9 Psychology of labour
.011 Concept of labour. Freedom to work
.012 Labour as a production factor
.013 Importance, utility, value, dignity of labour
.018 Qualitative differences in labour
  .2 Good, sound, valuable
  .3 Average, moderate
  .4 Bad or poor

331.02 Kinds of labour. Manpower and labour capacity

.021 Kinds of labour or employment: voluntary, professional, executive, etc.
  .821 Physical or manual labour
  .822 Intellectual or spiritual work
  .831 Productive labour
  .832 Unproductive labour
.022 Psychological aspect: attitude to work, morale, discipline
  → 331.054; 65.013
.024 Industrial manpower. Labour capacity, exhaustion and renewal
  .1 Individual manpower
    → 658.3
  .2 Labour capacity of a country or national groups
  .3 Effective labour output. Raising of output

331.04 External influences ,factors. Work environment

.041 Technical influences. Type of labour (light or heavy), machines, etc.
.042 Management factors. Management climate
.043 Physical and chemical factors, e.g. climate, noise, lighting and colour, temperature and ventilation
.044 Time factor. Duration. Working hours. Breaks
.048 Indirect influences: home life, job, security, etc.
  .1 Social, political, economic and legal factors
  .2 Private or home life (of the worker)
  .5 Travel factor: commuting, etc.

331.05 **Intrinsic factors**
including age, race and sex
Divide by -05

.053 Physical condition and bodily factors.
Health, fitness, aptitude, experience, work rhythm

.054 Mental condition nad psychological factors:
health, aptitude, team spirit, work interest
→ 331.022

.055 Variety. Monotony. Fatigue
≙ 658.3.055

331.1 INDUSTRIAL RELATIONS. LABOUR RELATIONS.
WORKERS AND EMPLOYERS

.11 **Workers, employees: application, contract, engagement**
→ 347.754

.114 Stipulations, conditions of engagement:
professional qualifications, health, etc.

.115 Choice, selection, interviewing of workers
- .1 Engagement or recruitment by advertising
- .2 Applications. Requests for position
- .6 Suitability, general capability, special aptitude tests. Medical examination

.116 Labour contracts
- .3 Collective labour contracts

331.12 **Enrolment. Organization by groups. Departmentalization**

.122 Initiation. Probation, trial periods

.123 Employment books, certificates. Work passes

.125 Grade and record ofc service. Regrading. Promotion

.126 Turnover, fluctuations in labour force.
Ties with the enterprise

331.13 **Notice. Dismissal. Reinstatement.**
Retirement on pension or half-pay

331.14 **Works and office regulations**

.147 Encouragement, suggestions, e.g. to improve the enterprise
→ 331.876.6

.148 Disciplinary measures. Penalties: reprimands, fines, etc.

331.15 Work-employer relations in the enterprise

Disputes, etc.
→ 331.88/.89

.152 Co-operation. Joint (works) committees, company unions, etc.

.153 Conciliation

.154 Mediation

.155 Arbitration

.157 Arrangements between employers and employees. Workshop agreements

.158 Encouragement, stimulation, incentives for improved performance, increased efficiency or productivity
→ 330.16; 331.876; 331.97

331.16 Settlement of disputes internally. Labour jurisdiction, tribunals, etc.

→ 347.99; 351.83

331.17 Employers' provision for benefit of employees

→ 331.835

: 027.6 Works libraries

: 336.722 Works svings banks. Employees' savings funds

.171 Pension funds. Benevolent funds
→ 368.4

331.2 REMUNERATION. PAY(MENT). WAGES. SALARIES. FEES

→ 351.83
(083.2) Paybooks

331.21 General administrative questions: payment, level, etc.

.211 Payment: method, place, time, etc

.214 Economic theory of wages

  .1 Brass wage law

  .2 Wages fund theory

  .3 Productivity theory

  .4 Profit theory. Wage theories of economic compulsion

.215 Level, rate of remuneration

  .1 Fair remuneration of wage (corresponding to value of labour)

  .2 Fluctuations: increase of rise; decrease or fall

  .3 Relationship of wages and prodution costs

331.215.4 Relationship between wages and cost of living. Nominal and real wages
→ 331.83

.5 Maximum and minimum wages. Subsistence minimum

.6 Gross and net wages

.8 Wage competition

.216 Continued payment during absence (sickness, accident, etc.)

.218 Cumulation of wages and salaries. Double-earners

331.22 Scales or systems of remuneration

.221 Scales dependent on length of service, performance, qualifications, skill or capability

.222 Wages index

.225 Weighting. Allowances. Bonuses

.226 Family allowances. Separation allowances

.228 Wage equalization fund. Earnings substitution fund

331.23 Bases and forms of remuneration

.231 Piece work. Piece rates. Contract wages

.232 Time basis: by hour, day, week, month, year

"375" Overtime wages

.235 Forms of remuneration: money, vouchers, shares

.5 Payment in kind

.236 Sub-contract and group contract payment. Commission

331.24 Pfofit-sharing. Percentage shares. Shareholdings

331.25 Pensions. Insurances. Superannuation. Retirement pay

x 331.26 (The State and wages) use 331.2 : 351.83

331.27 Professional remuneration,
e.g. fees or honoraria

331.28 Organisation and planning of wages and salaries

x 331.3/.5 (Categories of labour: youth, women, foreign, etc.) → 331-05

331.6	EMPLOYMENT (AND UNEMPLOYMENT). LABOUR MARKET → 331.96; 368.44; 376.63
.062	Degree of unemployment: complete, partial, etc.
.063	Types of unemployment
.2	due to technological factors (mechanization, automation)
.3	due to economic cycle, crises or slump
.5	Seasonal
.61	Measures to prevent and relieve unemployment → 351.83/.84; 362.5
.62	Foreign labour. Competition from foreign workers. Protection of home labour
.63	Further measures for relieving the labour market
.64	Labour service
.65	Misuse of labour through unpermitted applications. Clandestine labour. Disregard of regulations for the sharing of labour requirements
.68	Fight against effects of unemployment. Aid. Assistance
.69	Shortage of manpower. Overemployment of manpower
* 331.7	(Occupational categories) → 331-05, esp. -057
331.8	WORK TIME AND CONDITIONS, FACILITIES, ORGANIZATION, ETC. → 351.83
331.81	Work time. Working hours. Time-off, shift-work. Leave
.811	Working hours Divide by "4" (Aux.I.g), e.g. "435" Five-day week
.812	Nightwork
.813	Sunday and holiday work
.814	Overtime work
.815	Festivals and Labour Days. May Day (1st May). Bank holidays
.816	Absence without leave. Absenteeism
.817	Absence with leave, e.g. due to sickness, military service, etc.
.5	Holidays. Vacation. Leave

331.82	Working conditions. Work places. Work premises
.821	Dangerous or unhealthy trades
.822	Industrial health measures against work hazards and occupational diseases. Medical treatment and care → 613.6; 628.5
.823	Work safety. Occupational hazards and accidents → 368.41; 614.8
.825	Liability of the management. Compensation
.827	Improvement of working conditions. Workplace arrangement
331.83	Economic and social conditions of employees. Standard of living
.832	Shops and stores for workers
.833	Housing, lodgings (from the standpoint of work) → 333.32; 728
.834	Allotments (gardens) → 333.328
.835	Eating and meal facilities. Works canteens
.836	Social welfare of workers → 331.25; 362.5/.6
.837	Transport of workers, e.g. by buses
.838	Emergency measures during crises
331.85	Leisure promotion and recreational facilities → 027.4; 37; 379.8
331.86	Training problems. Technical instruction Training of new blood, apprenticeship, etc. → 37, esp. 377
.066	Readaptation (to other occupations). Reeducation ow workers
.861	Apprentice training. Basic training
.862	Apprentice establishments. Works schools
.863	Further training and development of manual workers
.865	Grants and foundations (for study, travel)
.868	Training of foremen and master craftsmen. Advancement, promotion of workers

331.87 Work organization (in industry)
→ 658.5

.872 Division of labour. Specialization

.873 Merging or consolidation. Concentration of different jobs on one workman

.874 Group or team work. Simultaneous employment of several workers on one task

.875 Mechanization and automation of labour. Machine-minding. Line production working

.876 Forms of workers' initiative (in work organization)
→ 331.158; 331.97

.2 Labour activists

.3 Voluntary labour brigades

.4 Emulation for efficiency (Stachanov movement)

.5 Socialist labour brigades

.6 Innovations and suggestions system
→ 331.147

.877 Information (explanations, instructions) within the enterprise

331.88 Social partnership. Trade unions. Employers' associations. Professional organizations
≙ 06

.881 Workers' organizations. Trade unions and (con)federations, e.g.

: 622 Mineworkers' unions

.882 Employers' associations and federations

.883 Mixed associations of employers and employees
→ 331.152; 338.981

.884 Organizations of professional workers

.885 Professional organizations of craftsmen. Guilds

331.89 Industrial strife

Labour disputes, strikes, lockouts, etc.
→ 331.15; 343.46

.892 Strikes. Strike-funds

.893 Sabotage, passive resistance (stay-in, work-to-rule, etc.), boycott, etc. by workers or employees

331.894/.897	Employers' methods. Injunction, etc.
.895	Lockouts
.896	Anti-strike measures, strike-breaking: use of outside or volunteer labour
.897	Assistance to employers during strikes. Financial support, etc.
.898.1	Use of troops in labour conflicts → 355.426
331.91	International Organization of Labour → 351.83
.94	Industrial, factory inspection. Labour control → 331.821; 614.8
.95	Labour bureaux. Labour offices. Labour secretariats → 354.84
.96	Applications for employment. Agencies. Labour exchanges. Labour market. Advice on choice of job → 331.6
.97	Rewarding of employees (by authorities, associations, firms, etc.) Decorations. Medals → 331.147; 331.158
x 332	(Private finance)
x .1	(Banking. Banks) → 336.71
x .2	(Savings banks. Savings) → 336.72
x .3	(Loan institutions. Loan) → 336.73
x .4	(Money. Mint currency. Coinage) → 336.74
x .5	(Fiduciary money. Papers and special currencies. Money substitutes. Rates of exchange) → 336.747
x .57	(Currency. Circulation of money) → 336.748
x .6	(Exchange. Financial market. Stockbroking) → 336.76
x .7	(Credit, clearing house, etc.) → 336.77
x .8	(Interest) → 336.78
x .9	(Counterfeit, forged money and securities) use 336.74.009.53

333 LAND AND PROPERTY. REAL ESTATE

→ 339.091/.092; 347.23

.013 Ownership of land

.2 Economic (ground) rent
→ 339.233.2

.4 Problems of locality. Land as the location for branches of industry

.6 Land reforms. Movement for the free distribution of landed property

.073 Estate transfer, management, surveying
→̂ 35.073

333.1 Public ownership of land. Public state and communal property

→ 339.3

.11 Expropriation
→ 347.234; 351.712.5

.12 Nationalization. Socialization. Inalienability
→ 335; 338.982

.13 Ownerless property. Unoccupied land. Waste land

333.2 Communal property. Commons

333.3 Private (landed) property. Housing problem, types of ownership, etc.

.31 Family estate or seat: primogeniture, entail, ancestral seats
→ 347.237

.32 Housing problems. Housing reform, etc.
→ 331.833; 351.778.5; 728

.322 Housing reform. Housing shortage and allocation

.2 Improvements in housing conditions. Housing reform

.3 Promotion of building activity
→̂ 351.778.53

.6 Allocation, provision of housing. Housing market

.323 Government intervention in allocation of rented property. Landlords' and tenants' protection. Rent restrictions

.324 Compulsory letting. Commandeering. Notification of vacant dwellings

.325 Temporary, makeshift or emergency housing: camps, hutments, shanty dwellings

.326 Defective, condemned houses. Insanitary housing

.327 Sites for house construction. Building land

333.328 Small gardens and allotments
→ 331.834; 333.38

.33 Mortgages. Loans. Sales
→ 336.73

.34 Land registers

.37 Large-scale ownership. Latifundia

.38 Medium- and small-scale property. Small holdings
→ 331.833; 333.328

.39 Operations and speculations in land

.4 Landed property of absentees and foreigners. Absenteeism

.5 Agricultural property, land leased for farming.
Change of ownership

.6 Urban property

.65 Built-up or developed sites

.66 Undeveloped sites. Building land

.7 Forest lands and property

.8 Property in mines, in subsoil

.9 Fishing, water pasturage and other property and usage rights

334 CO-OPERATION. CO-OPERATIVE MOVEMENT

→ 301.186.2; 347.726; 658.114.7

334.025.1 Supply, buying or purchasing societies

.3 Service societies

.5 Marketing and product selling societies

334.2 Credit, loan, savings societies
→ 336.7

334.3 Co-operative insurance societies. Mutual (aid) societies.
Friendly societies
≙ 368, e.g.

.311 Fire insurance societies

.32 Transport insurance societies

.33 Life insurance societies

.338.1 Accident insurance societies

.2 Sickness insurance societies

.35 Agricultural insurance societies

334.4 Producers'(business) co-operatives
(tradesmen, manufacturers, professional men, etc.), e.g.

.025.1 : 614.27 Pharmacists' supply societies

.3 : 631.361 Threshing-machine service societies

.5 : 637.1 Dairy-produce marketing societies

334.5	Consumers' co-operative societies (shops, services), e.g.
.025.3 : 648.1	Cooperative laundries
.6	Integral co-operatives. Workers' producer co-operative societies, e.g.
: 63	Agricultural producers', farmers' co-operatives
: 7.07	Artists' co-operatives
335	SOCIALISM. SOCIALIST SYSTEMS → 329
.07	Philosophical study of socialist systems
335.1/.4	Pre-Marxist schools and trends
.1	To end of 18th century
.2	Saint-Simonism
.3	Fourierism
.4	Other pre-Marxist trends, e.g. Thompson, Owen, Chartism (in Britain)
335.5	Marxism. Communism. Collectivism
.51	Historical or evolutionary socialism. Marxism
.52	Reformist socialism. Revisionism
.53	Revolutionary socialism
.54	Collectivism
.55	Communism. Leninism
.6	State socialism
.7	Other socialist systems and schools
335.8	Anarchism. Nihilism
335.9	Socialist or co-operative communities. Ideal states. Utopias, etc.
: 82-3	Novels about ideal states
.95	Utopias. Ideal and imaginary states
336	FINANCE. PUBLIC FINANCE. TARIFF SYSTEM. BANKING AND MONEY
.07	Finance organs. Finance authorities → 35.07

336.1/.5	PUBLIC FINANCE. STATE FINANCE → 351.72; 354.21/.23
≈ .11/.119	(State property as revenue, monopolies) → 339.3; 338.8
336.12	Budgets. State, public or government budgets
: 354	State or (central) government budgets. Federal budget
.121	Budget planning, esstimates, balancing, etc.
.1	Composition. Division (expenditure, revenue)
.2	Preparation of budgets. Finance periods
.3	Discussion, decision, voting and enactment → 336.126.56
.34	Voting adoption
.36	Finance laws, acts, decrees
.38	Special questions: Adjustments between various provisions
.5	Modifications, restriction of the budget
.6	Types of budget
.61	Ordinary budgets
.62	Extraordinary budgets
.65	Additions, supplements
.7	Balancing the budget
.8	Budget accounting. Final account. Closing
.126	Budget execution and control. Publication of accounts. Audit
.1	Accounting year. Business year. Fiscal year
.2	Administration of public finances → 354.21/.23
.3	Revenue, receipts from taxes, duties, customs, monopolies, contributions, etc.
.34	Handling of receipts. Distraint
.4	Expenditure, payments
.41	Assignment of resources. Treasury plans
.42	Disbursement or payment
.5	Controls over finance officials. Responsibility for bookkeeping and audit. Cash audit
.55	Courts of audit. Audit offices
.56	Political (parliamentary) control of the budget → 336.121.3
.561	Financial statements
.562	Declarations of audit courts. Auditors' reports
.563	Examination of accounts in general by special commissions
.564	Enactment. Exoneration. Indemnity

336.127	Budget revenues and expenditure
.1	Ordinary revenues and expenditure
.2	Extraordinary revenues and expenditure
.4	Revenue, receipts from various sources
.025.31	from physical persons
.32	from juridical persons
.43	Revenues from taxes, duties, customs, monopolies
.44	Revenues from taxes and contributions paid by state-concerns and co-operatives
336.2	Fiscal regime. Taxes. Inland revenue → 337.2; 343.359; 351.72
: 172.1	Morality, ethics in tax matters
: 343.293	Tax amnesty
: 347.143	Prescription or time-bar on taxes
.01	Theory of taxation. Productivity of taxes. Tax burden
.015	Tax penalties → 336.2.04; 343.359
.02	Tax-levying, taxpayers, rates, imposition, collection, etc.
.022	Level of taxation
.023	Tax-levying authorities (state, province, county, municipality, etc.)
.024	Persons liable to taxation. Taxpayers
.1	Physical persons
.3	Juridical persons
.025	Object of taxation. Taxable object
.3	Persons, physical and juridical
.4	Things, products
.5	Procedures, transactions
.6	State of affairs
.026	Rate of tax: grading, apportionment, tariffs → 336.2.027.5/.9
.2	Rating or grading (fixed, proportional, progressive rates)
.25	Deductable items, e.g. advertising and business expenses
.26	Untaxed amounts

336.2.027 Tax declaration, valuation, assessment

.1 Direct enquiries and returns

.12 Land-register system

.13 Direct declarations or returns. Tax committees.
Tax commissions

.2 Register system

.3 Composite system

.5 Valuation of tax bases. Tax value. Coding

.55 Deductible expenses, write-off, etc.
→ 336.2.027.7/.8

.6 Alteration of tax bases

.7 Tax modifications: increases, remissions, allowances
→ 336.2.029.2/.4

.8 Exemption, relief, tax-free limits
→ 336.2.027.55

.9 Final assessment and fixing of tax

.028 Entry in tax lists and provision of extracts therefrom

.029 Recover, collection, payment. Repayment

.1 Kinds, methods of tax recovery

.2 Exemption from payment

.4 Additional, supplementary and surtax payments

.5 Provisional tax recovery. Advance payments

.6 Debit recovery

.7 Repayment, refunding of tax
→ 336.2.03

.8 Payment vouchers

.9 Legal proceedings. Distraint

.03 Effects and consequences of taxation. Claims for repayment, etc.

.032 Double taxation

.038 Claims for repayment and exemption
→ 336.2.027.7/.8

.04 Tax evasion, e.g. by shifting to purchasers,
transfer of funds
→ 343.359

.06 Formalities. Forms, etc.

336.21/.26 Fiscal systems according to types of taxes
→ 336.27

.21 Direct taxes (on profit, income, property, wealth)

.211 Real estate or land property tax

.1 Land registers (for tax assessment)
→ 336.2.027

.2 Taxes on land property. Land tax

336.211.3 Taxes on buildings and built-up property

.4 Special taxes on sites for enhanced value.
Betterment tax

.213 Personalty, personal property tax

.1 Rental tax. Tenants' tax

.4 Taxes on particular parts of a dwelling or its fittings

.5 Taxes on vehicles
≙ 629.1, e.g.

.513 Motor vehicle tax

.6 Taxes on domestic animals
≙ 636, e.g.

.67 Dog tax

.215 Income tax. Tax on profits

.1 Taxes on earned income (work or labour alone)

.2 Taxes on business and industrial income
(capital and labour)
→ 338.934

.3 Taxes on investment profit, leases, dividends, etc.
(capital only)
→ 336.243

.216 Poll tax or capitation. Citizenship and special
personal taxes, e.g. bachelor tax

.217 Taxes on private wealth, property or capital

.218 Emergency taxation, e.g. on war profits, supertax

.22 Taxes on consumption, excessixe expenditure and luxuries, e.g.
: 664.1 Sugar tax

« 336.221 (Customs duties) → 336.41

.222 Excise duties (on home commodities)
→ 336.41

.223 General manufacture and consumpthon taxes.
Turnover tax

.224 Taxes on luxuries
→ 336.241.7

.23 Direct and indirec taxes in general

.24/.25 Various taxes
→ 336.28

.241 On practice of professions and business

.4 Taxes on profits of firms

.5 Taxes on business, craft or trade

336.241.7 Entertainment taxes
→ 336.224

.8 Cure taxes (health resorts)

x 336.242 (Registration dues) → 336.282

.243 Mortmain and (unearned) increment taxes

.245 Mutations dues in general: property conveyance, stock exchange taxes and taxes on estate transactions

.246 Mortgage taxes

x .247/.248 (Copying fees, stamp duties) → 336.282

x .249 (Inheritance and death duties) → 336.272.7

x .251 (Legal costs) → 336.284

.252 Duties on credit-creating and -negotiating institutions, banking operations, share issue, etc.

.253 Taxes on insurance

x .255 (Levies and tolls in respect of particular services) → 336.283

.26 Levies in kind

336.27 Fiscal systems according to types of tax-payers
→ 336.21/.26

.271 Taxes from juridical persons

.1 Turnover tax

.5 Taxes from corporate bodies. Taxes on the income of juridical persons

.272 Taxes from physical persons

.1 Taxes on wages, salaries

.2 Taxes on farmers' income

.3 Taxes on the income from literary or artistic activities

.5 Taxes on the income from exercising profession or business

.7 Inheritance, legacy and death duties

336.28 Dues, duties and fees

.282 Administrative dues or duties: registration, copying, stamp, patents, standards

.283 Utilization service dues: cleansing, drainage, road, market, school, etc.

.284 Legal dues: arbitration and solicitors' dues

.29 Extra charges or levies on gross or net income, e.g. on surplus or excess profit

336.3 Public loans. Public debts

.31 State funds. Government annuities

.32 Floating debts. Treasury or exchequer bills

.33 Funded, consolidated debts. Redemption. Cancellation.
Bonded and book debts. National debt register

.34 Public credit

,35 Annuities. Annuity funds. Rate of interest. Money rates

.36 Reduction (of interest rates). Moratoria.
Postponed payment. Annulment. National bankruptcy

.37 Conversion. Compulsory consolidation.
Merging of several types of loans. Revaluation.
Loan-liquidation

x .38 (State lotteries) → 336.46

336.4 Other receipts and sources of revenue. Customs, etc.

→ 337

.41 Customs duties and clearance
→ 336.222

.02 Customs-levying authorities, dutiable persons
and goods, assessment, collection, etc.
≙ 336.2.02 (with extensions of .026 and .027)

.026 Customs regulation and tariffs

.6 Tariffs according to structure: simple,
double duties

.7 Tariffs as basis for trade agreements

.9 Combined tariffs and other arrangements

.027 Assessment, apportionment of customs duties

.5 Bases for calculation

.51 Ad valorem (ad val.) duties

.52 Specific duties: by weight, by number of articles

.04 Alterations of customs assessment and collection

.06 Technical formalities, forms, etc.

.075 Administration, authorities, organs

.415 Forms of customs clearance

.2 Exemption

.3 Permit (bail of security)

.4 Temporary duty-free admission

.7 Free ports. Free zones. Option to bond

.42 Revenue from sale of state property and wealth

.43 Contributions to public investments

.44 ~~Yields and~~ proceeds from confiscations, inheritances,
gifts or donations , treasure-trove and other finds.
Prescription (as source of revenue)

336.45	Fines (as source of revenue) → 343.27
.46	Lotteries (as source of revenue) → 336.789; 343.56; 351.762
.47	Money issue (as source of revenue)
.48	War damage contributions and compensation
.49	Property values: profits from real estate, bonds, etc. (as source of revenue)
336.5	Public and State expenditure
: 35	Public expenditure for administrative purposes
.51	Functions and forms of expenditure
.53	Material expenditure,including investments
.55	Personal expenditure. Salaries. Pensions
.57	Other public expenditure: Grants, donations, subsidies, compensations or indemnities, liquidation of debts
336.6	FINANCE(S) AND FINANCING OF ECONOMIC ORGANIZATIONS, AND OF THE ECONOMIC SECTOR
.61	*Finances of* State-owned branches and organizations of the economy
.62	Finances of co-operative organisations
.63	Finances of privately-owned branches and organizations of the economy
.64	Business enterprise finances and financing. Capitalization. Raising of capital. (N.B. 336.64/.67 concern only State or nationalised enterprises) → 658.14
.645	Financing of investments, currency, and social expenditure
.647/.648	Financial sources of enterprises. Own and external capital → 658.147/.148
.647	The enterprises' own sources or capital. Share capital ≙ 657.411
.648	External finance sources. Foreign capital. Loan, third-party, short- and long-term capital ≙ 657.412
.66	Assets, property, capital, founds and stock of enterprises
.67	Financial results. Profits. Losses

336.7 MONEY. BANKING. EXCHANGE
→ 347.73; 368

336.71 **Banking. Banks**

.078.3 Banking control

.711 National banks. Central banks. State banks. Banks of issue or issuing banks

(410) Bank of England

(430.1) Deutsche Bundesbank (German Federal Bank)

.6 Standard conditions, stipulations. Cover, solvency. Note circulation. State supervision

.712 Provincial banks. Municipal banks

.713 Private banks, Deposit banks. Exchange banking concerns

.714 Investment trusts. Investment companies.
→ 336.763.268

.717 Banking business. Banking operations and transactions

: 336.745 Exchange of money

.061 Regular business. Credit dealings

.063 Business other than credit dealings

.1 Clearing-house activity. Cheque and transfer operations. and services. Settlement dealings
336.717.4

(1-2) Local (municipal) service

.11 Conditions and formalities. Account holders. Opening, closing, cancellation of accounts. Paying-in, transfer, withdrawal, blocking. Lapsing

.113 Obligations in favour of the account holder
→ 336.719.2

.115 Completion of forms

.12 Instruments. Forms

→ (083.2) Aux.I.d

.122 Printed forms for paying-in, transfer orders and cheques

.2 Paying-in forms

.3 Transfer forms

.4 Cheque forms, cheques

.41 Postal cheques

.46 Bank cheques
→ 336.777

.7 Acknowledgement forms. Statement (of accounts)

336.717.13 Clearing (giro) and cheque transactions.
Express transmissions

.132 Orders to the cheque and transfer service

.2 Deposits, paid-in sums

.3 Transfers

.4 Withdrawals

.134 Presentation. Certification

.135 Supplementary instructions

.137 Trend and state of the account balance

.1 Credit and debit advices

.3 State of the account. Balance. Cover. Overdrafts

.5 Accounts without transactions

.15 Auxiliary or special services

.16 Accounting and accounts
Divide by :657

.2 Deposit business

.21 Lock-up deposit. Safe-deposit hire

.22 Open deposit

.3 Deposit management (day-to-day money, money at call)

.4 Current account business
→ 336.717.1; 336.778

.5 Loan office business. Advances on security

: 336.763 Advances against marketable securities, stocks, etc.

.6 Discounting business. Bill-broking

.71 Securities and exchange commission business.
Debt-collection business

.8 Loan negotiation. Placing

.719.2 Secrecy in banking

336.72 Savings. Savings banks

.722 Savings banks
→ 336.732

: 061.25 Associations of savings banks

: 331.17 Savings banks of firms, works, etc.

: 353 Provincial or regional savings banks

: 656.885 Post office savings banks

.1 General questions

.11 Conditions and formalities: The depositor, opening of accounts, deposits, transfers, withdrawals, closure, time limitation

336.722.14 Types of saving
.141 according to method of paying in and out
.142 by particular sections of the population, e.g.
-053.2 by children
.144 with special financial advantages, e.g.
:336.2.027.8 Tax-free or tax-reduced savings
.145 for specific purposes, e.g.
:336.732 Building or housing savings
.2 Certificates. Accessories, aids to saving
.22 Printed forms for paying in and withdrawal
.24 Savings certificates. Savings books. Savings stamps
.26 Accessories, aids to saving. Saving boxes, tokens, etc.
.3 Transactions on saving account
.32 Instructions to the savings bank: deposits, transfers, withdrawals
.34 Presentation for payment. Authorized payees
.35 Supplementary dispositions of principal or recipient
.37 Trend and state of savings account balance. Credit and debit advices. Accounts without transactions
.6 Accounting
→ Details by :657
.8 Financial management
: 336.767 Capital investment

336.73 Various loan institutions

.732 Credit associations for housebuilding. Building societies
.733 Public money lending. Public mortgage loans
.734 Private money-lending. Pawnbroking

336.74 Money. Mint currency. Coinage

→ 737.1
.009.053 Forged money
→ 343.51
.741 Origin and nature of money
.1 Origin of money
.2 Nature of money. General thoery of money
.22 Functions of money

336.741.23	General concepts and laws of money
.231	Money value. Real value. Exchange value. Commodity value. Face value
.232	Legal tender capacity
.233	Purchasing power of the monetary unit → 339.452
.236	Planning and speed of money circulation. Hoarding
.237	Demand for money. Creation of money
.24	Types of money. Money valuta
.28	Monetary theories
.742	Money material. Material as money. Mint or coinage metals. Non-metallic money materials. Precious metal exchange
:669.22	Silver as coinage metal
.743	Currency. Fixed standard
.2	Single standard. Monometallism
.22	Gold currency
.23	Silver currency
.3	Double standard. Bimetallism
.4	Parallel standard
.5	"Limping" standard
.744	World money. International money. Trade coinage. International monetary convention. Synchartism (Currency identical in two or more states)
.745	Money exchange and related operations
.3	International exchange. Foreign credits and investments. Transfer. Clearing
(4)	European Payments Union (EPU)
.746	Minting of money. Coinage. Wear. Debasement of coinage
.747	Fiduciary money. Paper and special currencies. Money substitutes. Rates of exchange
.1	Bank notes. Treasury notes
.3	Emergency money
.4	Obolescent money. Uncontrolled money
.6	Currency index. Price level standard. Manipulated currency. Commodity dollar
.748	Exchange rate, movements and flustuations
.1	Exchange rate movements
.12	Inflation
.14	Deflation
.2	Alteration of currency basis. Devaluation

336.748.3	Exchange fluctuations. Valuta. Compulsory exchange rates
.4	Stabilization
.6	Revalorization
.7	Measures for maintenance of exchange rate. Gold clause
.8	Open market policy
336.76	**Exchange. Money market. Capital market. Private administration of holdings**
.761	Stock exchanges. Government security exchanges → 381.11
.3	Official transactions
.4	Unofficial transactions. Coulisse. Curb (kerb) market
.5	Exchange quotations. Market quotations. Exchange list
.6	Turnover of marketable securities. Scope or volume of exchange business
.762	Exchange authorities. Exchange apparatus. Stockbrokers
.763	Securities. Bonds. Debentures. Stocks. Shares → 336.717.13; 336.777
.061.7	Securities with and without entitlement to interest
.1	Types of security
.12	Officially and semi-officially quoted securities
.13	Unquoted securities
.15	Discountable and non-discountable securities
.16	Securities according to title: bearer, registered, negotiable
.2	Shares. Dividend-bearing securities
.21	Shares with par value, in general
.22	Bearer shares
.24	Preference shares
.25	Shares with no par value (in general). Cost-book
.26	Other shares: founders', introduction and priority shares, participation deeds
.268	Investment (participation) certificates
.3	Debenture bonds. Debenture stocks
.067.8	Fixed value loans
.32	Guaranted debenture stocks. Trustee debentures
.33	State debenture stock. State loans

336.763.34	Mortgage debentures
.35	Private debentures (in general)
.36	Debentures convertible into shares
.37	Debentures with participation in profits
.38	Premium bonds
.4	Special securities. Warrants. Scripts
.42	Claims
.5	Documents, titles and parts thereof. Interest coupons. Interim certificates
.764	Stock exchange business in general
.061	Types of business: active, passive, brokerage provision → 336.717.061
.1	Cash transactions. Spot transactions. Transactions for immediate delivery
.2	Time transactions. Transactions for the account. Premium transactions
.765	Arbitrage transactions
.766	Public issues of marketable securities
.767	Capital investment in securities. Dividend and warrants, debenture bonds, etc. ≙ 336.763
.768	Liquidation or winding-up of associations
336.77	Credit. Function of credit in the national economy → 368.026.7; 368.095
:333	Credit for land, property and mortgage
:338	Credit for furtherance of production
:339.4	Credit for furtherance of consumption
:63	Agricultural credit
.067	Types of credit according to period and risk. Short-term or money market, long-term or capital market
.773	Credit associations, cooperatives. Interest-free loans. Workers' banks
.774	Further types of credit and credit problems
.3	Credit control. Trusteeship control matters
.5	Credit restrictions. Frozeh credits. Moratoria
.777	Commercial credit. Letters of credit and other negotiable instruments → 336.717.122.41
.7	Discount
.778	Settlement transactions. Clearing houses → 336.745.3

336.78 Interest. Capital interest. Interest yield. Lotteries

.781 Interest

(083.53) Interest tables

.1 Gross interest

.2 Loan interest. Interest on capital. Original interest. Yield on capital. Net interest. Dividends

.5 Rate of interest

.782 Usury
→ 343.53

.788 Theories of interest

.789 Lotteries
→ 336.46

337 CUSTOMS POLICY. FREE TRADE. PROTECTION

→ 336.41; 382

.01 Theories of free trade and protection
→ 330.172

.02/.06 (Details, assessment, collection, etc.)
→ 336.41.02/.06

337.1 Absolute free trade. Free trade without limitation

.2 Free trade with fiscal tariffs
(without protective object). Financial duties
→ 336.2

337.3 Protection(ism). Duties and (export, import) restrictions

.33 Export duties

.34 Import duties, e.g.

:633.71 Import duties on tobacco

.35 Transit duties

.36 Export restrictions

.362 Quotas
→ 337.972

.374 Temporary import prohibition

.375 Permanent import prohibition

.38 Transit and traffic restrictions.
Restrictions relative to finishing trade

.39 Retaliatory or reprisal measures. Customs war

337.4	Export promotion measures. Export relief. Export premiums (drawback)
.5	Manufactured articles as dutiable goods
.6	Raw materials as dutiable goods
.7	Cultural products (books, art objects, etc.) as dutiable goods
x .8	(Exemptions. Special facilities,etc.) → 336.415
337.9	Various customs systems or arrangements
.91	Trade agreements and treaties. Customs unions. Preferential tariffs. Most favoured nation treatment → 338.984.4; 382.4
(435.9+492+493)	Benelux
.912	Reciprocity
.914	Preferential tariffs. Most favoured nation clause
.916	Flag preference
.918	Origin and source, provenance certificates
.92	Customs relations between mother country and colonies. Differential tariffs.
.95	Special permits. Licences
.97	Forms of restrictions
.972	Quota system → 337.362
.974	Temporary prohibitions or bans. Embargo
.975	Permanent prohibitions or bans
338	PRODUCTION. CREATION OF WEALTH. ECONOMIC SITUATION → 308
:622.33	Mining economy and production
:63	Agricultural production and economy
(44)"1933"	The economic situation of France in 1933
.011	Concept of production. Productivity
.1	Yield. Laws. Yield ratio
.014	Comparative studies of enterprises → 65.012.66

338.4	Home production. Artisan and industrial production
.41	Domestic, home production (home-made-goods) → 338.966
.42	Craft production (skilled handi-work or -craft)
.45	Industrial production. Manufacture → 338.924
.455	Mass production → 658.526
338.5	Prices. Price determination. Costs
.51	Supply and demand as price-determining factors
.52	Kinds of prices: producers', competitive, etc.
.521	Equitable price
.522	Natural price
.523	Producer's price. Cost price → 657.47
.524	Market prices. Free-competition prices
.526	Monopoly price
.527	Tariff price ≐ 658.8.03
.53	Government influence on price determination
.531	Price regulation, supervision, control
.532	Price fixing
.1	Maximum prices
.2	Minimum prices
.3	Normal price. Price margin
.58	Costs → 657.471; 658
.581	General and special costs
.1	General costs
.2	Special costs
.582	Fixed and mobile costs
.1	Fixed costs. Constant costs
.2	Mobile costs. Proportional, degressive, progressive costs
:338.455	Falling costs in mass production
.585	Costs in the particular branches of the economy or classes of goods
.3	Costof living
.8	Costs of particular classes of goods

338.6 Corporative organisation of production

by industrial corporations, guilds, etc.

338.7 Associative organisation of production

by industrial associations, federations,
companies, firms, etc

338.8 Private production monopolies

Combines. Trusts. Cartels. Syndicates.
Price and sale (control) rings. Mergers
→ 381.81

.82 Co-operation, collaboration between enterprises, e.g.
for research, information, use of patents
and exchange of licenses

.83 Commercial arrangements and agreements between enterprises:
cartel arrangements

.831 General agreements: recognition, conditions, penalties

.832 Purchasing agreements: equipment, stocks,
tools and machinery

.833 Production agreements: processes, quality of products,
brands, production quotas, etc.

.834 Sale and (selling) price agreements

.2 Price agreements

.4 Sharing of orders

.5 Pools: production, marketing, profit-sharing, etc.

.7 Cartels. Rings. Syndicates

.004.7 Decartellisation

.835 Price-fixing and service agreements

.838 Government-approved cartel agreements

.84 Combines (for limiting the number of enterprises).
Trusts. Private monopolies

.86 Holding companies

.87 Mergers. Fusions. Amalgamation of firms

.89 Anti-monopoly measures. Anti-trust precautions

338.91 Factors of production

Means of production. Fluctuations of production
→ 338.97

338.92 Modification, reorientation of economy.
Structural modification

.922 Agronomization. Change to rural economy

.924 Industrialisation
→ 338.45

.926 Comparison of economic structure

338.93 Enterprises and enterpreneurs
Risk. Profitableness
→ 061.5; 339.233.3; 347.72; 658.1

338.94 Productivity of capital
→ 330.14

338.95 Forms of enterprise. Metayage. Concessions, etc.

338.96 Extent of enterprise or industry
→ 65.017

.962 Large-scale businesses. Large-scale industry

.963 Medium-scale businesses. Medium-scale industry

.964 Small-scale businesses. Small-scale industry

.965 Dwarf or midget concerns

.966 Home industry
→ 338.41

338.97 Economic or business conditions: fluctuations, cycles, crises, boom and slump

:31 Statistics of business conditions and movements

.971 Research on business conditions. Analysis, investigation of fluctuations, cycles, etc.

.972 Movement and alternation of business conditions. Economic or business cycle

.01 Theory of economic or business cycles

.014 Multiplier principle

.2 Causes of movement and cycles
→ 338.976

:336.74 Monetary causes

:551.5 Meteorological causes (weather, climate)

.3 Policy in relation to economic or business cycle

338.973 Expanding economy. Boom conditions

.974 Recessions. Crises. Slump conditions.
Disturbance of economic balance

:336.71 Bank crises

.976 Causes of crises, e.g. overproduction
→ 338.972.2

:336.74 Monetary causes. Gold shortage, etc.

.978 Damage to economy, especially from natural causes, e.g.
earthquakes, crop and animal diseases

338.98 State intervention in economic life, trade and industry.
Economic policy in general
→ 330.173.3; 338.972.3; 351.82

.981 Official representation of industrial production interests.
Industrial councils. Economic democracy

.982 State authorisation . Controls. Supervision

.4 Nationalisation of enterprises and sectors of industry
→ 333.12

.983 Encouragement, support of trade and industry:
subsidies, grants, etc.

.984 Production plans. Economic planning
→ 330.173.3

.2 Large-scale economic and technical-economic plans, e.g.

:627.532(262) Plans for draining of the Mediterranean

.3 National economic plans, e.g. five-year plans
→ 338.92

.4 International economic plans. Technical assistance
for economic development
→ 337.91

(4):622.33+669.1 European economic plan for coal and steel
→ 341.178

.987 Emergency, crisis measures. Special control
and restrictions. War economy

.3 Production restrictions

.4 Restrictions on use of specified raw materials.
Use of substitutes

.7 Restrictions on workmanship and finish of goods, e.g.
utility-style finishing

.8 Rationalisation in use of labour resources

.988 Transfer, shut-down, re-opening of enterprises

339 DISTRIBUTION, CONSUMPTION, CONSERVATION OF WEALTH AND NATURAL RESOURCES

.091 Private property

.092 Public, common or collective property

339.1 Prosperity. Poverty

.11 Prosperity. Plenty. National well-being

.12 Poverty. Scarcity. Dearth

339.2 Distribution and concentration of wealth

.21 The social product and its distribution

.22 Acquisition (of wealth)

.23 Private estate or fortune, capital, income

.231 Stratification of estate capital and income

.232 Formation, origin, acquisition of estate or fortune

.233 Income. Sources of income

.095 Gross income

.096 Net income

.1 Income from work. Earned income → 331.2

.2 Income from property. Rent and interest

.3 Income or profit from business and trade → 338.93

.4 Types of income: primitive and derived income. Money income

.5 Use of income

.8 Income and remuneration theories

339.3 National wealth, income, assets

.31 National wealth, capital, investments

.32 National income

339.4 Consumption of wealth. Production-consumption balance

.44 Normal, thrifty and excessive consumption. Measures against waste

.45 Production-consumption balance

.452 Consumption capacity. National standard of living

339.5	Conservation of wealth and natural resources. Fight against uneconomic exploitation
339.6	Supplies. Reserves. Durability, keeping quality of goods
339.8	Distribution, allocation of goods and products → 38
.82	Unorganised distribution
.84	Restrictions on consumption
.846	by technical measures, e.g. prescribing composition of foods
.86	Organised, controlled distribution. Rationing systems (cards, etc.)
.87	Internal distribution within a country
.88	Distribution abroad through foreign trade → 382

34 LAW. JURISPRUDENCE. LEGISLATION

N.B. The division of 34 is independent of the different national legal systems in particular countries, for which is substituted an arrangement constructed on abstract legal concepts. Only thus is it possible to provide a scheme usable in all countries

34(09)	History and sources of law
34(3/9)	Laws referring to specific countries or parts thereof
34.01	Nature and scope of law
.02	Conditions of existence of law
.021	Precedence, priority of laws
.023	As to subject: competency, assent, etc.
.025	as to object: nature of object, other laws, etc.
.028	as to form: official formalities, etc.
.03	Operation, workings of the law. Rights and liabilities. Effects of legal actions
.037	Legal measures to enforce and protect the operation of the law
.038	Jurisdiction. Territorial and material competency
.04	Course, changes, modifications
.043	Transmission
.045	Extinction
.046	Date, occasion and duration of law
.047	Alteration: modification, reorganization
.048	Nullity
.05	Comparison. Differences or analogies with other juridical institutions and actions
.06	Legal methods and techniques
.07	Administrative institutions and bodies ≙ 35.07
.08	Administrative personnel, officials, agents. Ministerial officers ≙ 35.08
.096	Individual cases, lawsuits and actions

340 LAW IN GENERAL. COMPARATIVE LAW

340.1 Various kinds, forms and principles of law

.11 Theory. Pure or absolute law

.114 Bases. Fundamental principles. Justice

.12 Natural law. Philosophy of law. Ideal or rational law

.13 Statute law. Laws: their effects, general rules for application, abrogation. Technique of legislation

.131 Validity and compulsive force of laws

.132 Application of laws, scope and limits
→ 347.113; 347.115

(44:493) Introduction of French law in Belgium

.133 Abrogation, explicit and implicit. Modification and temporary waiving of laws

.134 Legislation: technique, preparation, revision, etc. Bills, acts with legal force
→ 342.52

.135 Exceptional, emergency legislation. Abrogation, waiving of laws in force

.14 Forms of law other than statutes or the law

.141 Custom and usage in general. Common law

.142 Judicial rulings. Case law

.143 Doctrine in general

.144 Codification
→ 341.018

.145 Generalization, unification and uniformity of law

.146 Legal creed, legal symbolics

.148 Various general divisions of law. Personal and territorial law, etc.
→ 341.5; 347.17

340.5 Comparative legislation

Ethnological jurisprudence. Laws of primitive peoples. Differences and analogies between the legislation of various peoples, races and epochs

340.6 Forensic medicine and chemistry. Medical jurisprudence. Toxicology. Scientific questions

Diseases not mentioned there → 61

.61 Morality. Marriage. Sex instinct

.611 Offences against morality, decency and modesty. Indecency, immodesty

.1 Public affronts to sense of decency or modesty. Exposure

340.611.2 Assaults on personal modesty

.3 Rape. Violation

.4 Sexual perversions

.612 Grounds for prevention, for annulment of marriage. Separation, divorce

.619 Concealment, substitution, exchanging and exposure of children. Infanticide

.62 Attempt on the health, life and integrity of the person
→ 343.6

.621 Murder. Homicide

.622 Suicide

.623 Duelling

.624 Infliction of injuries or wounds

.1 Kinds of injuries (according to the way inflicted)

.2 Injured parts of the body

.3 Medico-legal examination of injuries or wounds

.4 Testing of blood stains, condition of brain, semen, etc. Examination of the weapon

.5 Scars. Weals

.6 Problems relating to dead persons. Post-mortem examination. Legal exhumation

.625 Communicable diseases, infections, contagions

.626 Apparent death

.627 Poisoning. Attempted poisoning
→ 340.67

.63 Mental diseases. Effect of physiological and pathological states on moral freedom

.64 Individual characteristics of living persons: age, sex, etc.
Divide by -05 (Aux. I.k)
→ 159.97; 343.225; 616.831; 616.89

.65 Simulation of diseases. Malingering

.66 Medico-legal surveys in particualr cases
→ 347.18; 347.65

.67 Forensic chemistry and toxicology
→ 343.347; 615.9

.68 Various scientific and technical questions of a legal character

.69 Experts. Their relations with justice and the authorities. Remuneration, etc.
→ 343.14; 347.948

.692 Forensic (medical and technical) investigations. Famous cases

.695 Responsibility of medical experts

340.96 Famous trials. Lawsuits and actions. Causes célèbres

341 INTERNATIONAL LAW. LAW OF NATIONS
→ 327

.01 General principles

.012 Principle of nationalities. Self-determination

.013 Principle of political equilibrium. Balance of power

.014 Principle of international or universal community of states
→ 341.12; 341.67

.015 Principle of natural frontiers
→ 341.222

.018 Codification, promulgation and implementation of international law. Sanctions, etc.
→ 340.144

.09 Classical studies and commentaries on international law (Grotius: predecessors, contemporaries, followers)

341.1 World organization. Regional unions
→ 341.64; 355.357

.11 World organization with abandonment of members' national sovereignty

.12 World government organizations (with retention of national sovereignty)

.01/.09 ≙ 06.01/.09

.121 League of Nations

.123 United Nations (Organization) U.N., UNO

.02 Members of the U.N.

.04 U.N. Committees

.043 U.N. Security Council

.045.9 U.N. Economic and Social Council

.16 Special agencies of world organizations (in general)

.17 Regional unions, communities of states

.172 with surrender of members' state sovereignty

.174 with partial surrender of individual state sovereignty

.176 with retention of individual state sovereignty, e.g.

(4) Council of Europe

.178 regional unions for special interests, e.g. European economic plan for coal and steel
→ 338.984

341.18	International, inter-state conferences or meetings
.181	Meetings of heads of states or prime ministers conferences. Top conferences
.182	Meetings of foreign ministers or their deputies, of ambassadors
.184	Meetings of ministers concerned with special fielsd, e.g. ≙ 354, e.g.
.81	Meetings of ministers for economic affairs
.81 EEC	Meetings of ministers of the European Economic Community (Common Market)
.185	Interparliamentary conferences, meetings

341.2 Persons and things in international law.

.21	Persons. States
.211	Sovereign states → 342.3
.212	Semi-sovereign states
.213	Federated, federal, united or union states → 342.23
.214	Neutral and neutralized states. Permanent neutrality → 341.35
.215	Other persons in international law
.217	Inter-state alliances, unions, etc.
(4)	Paneuropean Union
(7/8)	Panamerican Union
.218	Origin, recognition, transformation and the end of states → 321.013
.22	Things and property in international law
.221	State territories
.2	Inland lakes. Seas. Territorial and coastal waters, gulfs, bays, harbours → 341.225
.4	Internationalisation. Extraterritorialisation. Neutralisation
.222	Frontiers (between states). Natural, artificial, historic, strategic frontiers → 341.015
.223	Acquisition, transfer and loss of territory → 341.38
.224	Waterways, canals, rivers, lakes. International waterways

341.225 High seas. Open seas. International law of the sea
→ 341.221.2; 347.79

.227 Earth's interior. Sea and channel

.228 Polar regions

.229 Air space
→ 347.8

.23 Essential and reciprocal (mutual) rights, duties of states

.231 Independence. Autonomy. Self-government. Self-determination. Right to establish and control the constitution, legislation, administration and diplomatic representation
→ 341.012; 341.43

.232 Mutual (inter-state) aid, assistance

  .1 Mutual aid for defence, e.g. NATO, SEATO
  → 355.357

  .2 Financial aid, e.g. Marshall Plan

  .3 Economic aid, e.g. O.E.E.C
  → 330.191.6

  .5 Technical aid, assistance

.233 Right of intervention

.234 Right of minorities

.236 Responsibility of states for acts of their officials and citizens

.24 International agreements, pacts, treaties, convenants
→ 327.7; 341.382

(430:44) Treaties or pacts between Germany and France

.241 Kinds of agreements, treaties
→ 341.85; 382.4

  .2 Ententes. Alliances

  .3 Mutual assistance or defence pacts

  .4 Non-agression pacts or treaties

  .5 Guaranty or security pacts

  .8 Commercial, edonomic treaties
  → 382.4

.242 Settlement of treaties. Signing. Ratification. Registration by international organizations, e.g. by U.N. Publication, secrecy of treaties
→ 342.514

.243 Guaranty of treaties

.245 Lapsing and expiry of treaties

341.3 War conventions and laws

.31 State of war or belligerency. Causes of war. Ultimatum. Declaration of war. War zone or area

.32 Conduct of war
→ 342.77; 355

.321 Belligerents and persons implicated: armed forces, non-combatants, correspondents

.322 Licit and illicit conduct. Types of hostilities. Reprisals

.323 Siege. Bombardment. Blockade

.324 Occupation, administration of territories. Exploitation of resources of occupied territory

.5 Requisitioning of goods. Booty

.6 Requisitioning of labour
→ 325.25

.325 Truce negotiators, mediators
→ 341.373

.326 Treason. Espionage (spying). War ruses, stratagems

.328 Influence of state of war on treaties

.33 Sick and wounded. Geneva Convention. Red Cross: international committee, military hospitals, hospital-ships

.34 Prisoners of war. Internment. Hostages
→ 355.257.7

.341 Prisoners of war

.345 Internment of servicemen in neutral states

.346 Internment of civilians, indesirable nationals and aliens. Political internees
→ 343.34

.35 Neutrals, non belligerents: duties and rights
→ 341.214; 341.233

.354 War vehicles, aircraft on neutral territory

.355 Trade. War contraband. Right of search

.2 War vis -à-vis trade activities of neutrals

.4 Intervention, interference by neutral states

.356 War loans

.357 Relations between belligerents and neutrals on belligerents' territory

.358 Violation of neutrality

.36 Kinds of warfare
→ 355

.361 Land warfare
≙ 341.32

341.362 Sea warfare

.1 Privateering. Piracy. Prizes and booty

.2 Submarine warfare. Sea mines

.3 Naval (sea) bombardment and blockade

.363 Air warfare
→ 347.82

.2 Conduct of air warfare

.4 International legal conventions concerning air warfare

.364 Colonial warfare

.37 Negotiations during war. Peace negotiations

.373 Truce. Armistice
→ 341.323

.375 Capitulation. Surrender

.38 End and consequences of war. Re-establishment of peace
→ 341.223

.382 Peace treaty

.383 Occupation costs and burdens. Restoration of original legal conditions in liberated areas. Postliminy law

.384 Reparations. Indemnities. War debts

.39 Civil war
→ 323.27

341.4 International criminal or penal law

.41 Criminal offences committed abroad or by foreigners in the country

.42 Effect of foreign court sentences

.43 Expulsions. Political refugees. Right of asylum

.44 Extradition of accused or sentenced

.45 Inter-state collaboration on crime

.456 International police
→ 351.74; 355.357

.46 Punishable persons

.461 Juridical persons

.462 Physical persons

.48 Offences. War crimes. Genocide, etc.

.49 Prosecution of offenders. Sentences. National and international jurisdiction

341.5 Private international law

→ 340.132; 342.7

.51 Principles and procedure. Legal status. Autonomy of contending parties

- .513 Form of legal dealings
- .515 Qualification. Principle (classification of legal relations)
- .517 International agreements. Conferences and activities for unification of international private law (e.g. Hague Conferences)
- .518 Application of foreign laws. Validity, conflict with national laws. Competence and jurisdiction
  - .2 Appropriate law for winning or loosing a claim
  - .4 Principle of international recognition of successful claims
  - .6 Obstacles to unanimous solution of legal actions and recognition of successful claims. National factors. Public order. Trickery or deception of the law

.52 Rights, status of aliens and foreign concerns. Right to settlement

- .522 Physical persons
- .524 Corporate bodies, societeies, etc.
- .526 Juridical persons other than corporate bodies
- .527 International unions, associations, etc.

.53 Legal relations between nationals and aliens. Differences

.59 International lawsuit. Proceedings
≙ 347.9

341.6 Peaceful settlement of international disputes. International arbitration and jurisdiction

.61 International disputes, differences in general. Competence

.62 Amicable termination of disputes. Mediation. Investigation commissions

.63 International arbitration (various forms, etc.) : proceedings, sanctions

- .632 Agreements of any kind with arbitration clause
- .633 Compulsory arbitration. Optional arbitration
- .634 Proviso clauses
- .636 International courts of arbitration

341.64	International jurisdiction, e.g. court of the European Coal and Steel Community
.645	International tribunals
.646	Permanent Court of International Justice in the Hague
.65	Means of coercion other than war
.651	Retaliation in kind. Retorsion
.652	Reprisals
.653	Embargo
.654	Peaceful blockade
.655	Economic sanctions
.66	Results: recognition of successful claims, enforcement of measures. Reparation, compensation, etc.
.67	Disarmament. Limitation, control of (A,B and C) weapons of mass destruction → 172.4; 327.37; 355.019
.68	Armed peace
341.7	Diplomatic law
.71	Heads of states and diplomatic representatives in general. Ambassadors. Envoys. Representatives for international relations
.07/.08 ≙ 35.07/.08	
.72	Duties and prerogatives of diplomatic representatives. Competences
.73	Rights, immunities and franchises of diplomatic agents and of their retinue. Extraterritoriality. Inviolability
.75	Diplomatic ceremonial. Rank and precedence of states
.76	Diplomatic intercourse. Negotiations. Acts. Protocol. Diplomatic language → 341.18
.78	Various representatives enjoying diplomatic status or privileges
.781	Special diplomatic missions: military, scientific, etc. Attachés
.782	Officials on mission (post, telegraph, trade, etc.)
.783	Staffs, officials of international bodies, e.g. U.N.
.785	Armed forces abroad in peacetime

341.8	**Consular law**
.81	Consular representatives. Consul general. Consul, vice-consul, honorary consul. Relations with mother country and the country accredited to
.07/.08 ≙ 35.07/.08	
.82	Legal status of consular representatives
.83	Consular functions, duties, rights
.84	Consuls in non-Christian countries. Consular jurisdiction
.85	Consular agreements → 341.24; 382.4
342	**PUBLIC LAW. CONSTITUTIONAL LAW** → 321; 35
(42)	English public law
(430)(091)	Constitutional history of Germany
342.1	**State, nation, people. Territory. Authority**
342.2	**The State and its various forms**
.22	Personality of the State. Double personality, political and juridical. Sovereign rights
.228	Forms of expression of the sovereignty of a State. Name, arms, official seal, flag, national anthem
.23	Political dualism
.24	Federalism → 341.21
.25	Governmental and administrative centalization or decentralization. Regional and local autonomy (home rule)
.27	Provisional government. Revolutinary government → 323.2
342.3	**Sovereignty. Forms of government** → 321
.31	National sovereignty
.32	Delegation of powers in general, e.g. to private bodies → 325.35; 342.529
.33	Division of powers. Equilibrium of powers
.34	Democracy. Poular government → 342.57
.35	Aristocracy. Oligarchy
.36	Absolute monarchy. Royalty. Empire. Legitimism. Feodalism

342.37	Constitutional monarchy. Parliamentary government
.38	Republic. Republican form
.39	Authoritarian, corporate and other forms of government
.392	Authoritarian state
.393	Corporate state
342.4	**Constitutions. Establishment. Revision** → 328
342.5	**State authorities**
.51	Executive power. The executive. The government
.511	Head of State
.514	Duties and functions of head of State in international relations
.515	Duties and functions of head of State in respect to legislation
.516	Duties and functions ofhhead of State in respect to executive power
.518	Cabinet. Council of ministers. Ministries. Prime minister. Ministers. Ministers without portfolio. The State council
.52	Legislative power → 340.131; 342.32; 351.95
.525	Legislative power of the State council
.529	Transfer of legislative power. Authorisation of government by parliament
.53	National legislatures. Parliaments. Parliamentary law
.531	Upper House. House of Lords. Senate, etc.
.1	Formation. Election of members
.2	Duration of mandates. Tenure of office
.3	Total or partial renewal. Re-election. By-election. Nomination of new peers
.4	Duties. Functions. Prerogatives
.6	Lists of members. Register
.532	Lower House. House of Commons. Chamber of Deputies. House of Representatives. General States ≙ 342.531
.533	Parliament as a whole. One-house parliament or chamber ≙ 342.531

342.534	Members of parliament (M.P.s)
.1	Mandates
.2	Inviolability. Immunity. Privileges. Right of enquiry
.535	Entering upon office. Swearing up
.536	Inner constitution. Parliamentary discipline
.1	Executive, chairmanship, vice-chairmanship, speaker, etc.
.537	Parliamentary procedure
.2	Petitions. Motions. Questions (in the House)
.3	Bills: introduction and reading
.4	Elaboration, amendment and revision of bills
.5	Final procedure. Voting, adoption, passing of bill. Required majority
.6	Parliamentary debates
.7	Parliamentary enquiries
.538	Parliamentary sessions. Conferences
.54	Bodies within the State. Classes, social groups. Social structure
.55	Regional, provincial, cantonal power
.56	Judiciary power → 340.131; 347.97
.57	The people, popular laws
.571	Popular participation in government. Intervention
.573	Referendum
.58	Consultative power. Consultative bodies
.59	Various general questions. Disputes. Honours
.591	Competence. Disputes between authorities → 347.98
.597	Honours and precedences → 351.856
342.7	Fundamental rights, liberties, freedoms and guaranties secured to citizens and societies. Political and constitutional rights
(091)	History of constitutional liberties
(100)	Human rights
.71	Citizenship. Nationality → 325.25; 341.4; 347.15
.711	Naturalization
.714	Renunciation of of nationality or citizenship. Supranational laws. Option

342.715	Stateless persons
.716	Citizenship rights, obligations and duties
.717	Foreigners' political rights → 341.43
.72/.73	Specific rights and liberties of citizens. The State and the individual
.721	Individual liberty. Personal freedom → 343.43
.722	Civil and political equality
.724	Racial equality. Religious equality → 347.167.2
.725	Languages. Official languages
.726	Women's political rights → 342.83
.727	Freedom of thought, speech, communication → 342.731; 342.738
.728	Right of association → 347.471
.729	Right of assembly → 351.752
.731	Freedom of conscience and of worship → 343.42; 348.7
.732	Freedom of the press → 351.751
.733	Freedom to teach and to study → 379.351
.734	Right to work and chose an occupation
.735	Liberty of performance. Theatres, etc.
.736	Right of petitioning
.737	Inviolability of domicile. Right of free choice of domicile
.738	Inviolability, secrecy of correspondence, of communications → 343.132; 343.451
.739	Inviolability of ownership. Guaranty of right of succession → 347.23
.76	Restriction, limitation and suspension of constitutional liberties → 340.131
.77	State of siege. Martial law. Transfer of power to military authorities
.78	State of war

342.8	Electoral law. Suffrage or voting right. Electoral systems
	→ 324
.81	Conditions and bases of suffrage right. El igibility to vote
.811	Voting age
.814	Nationality. Race. Religion
.815	Loss, interruption, limitation of suffrage or voting rights
.816	Residence. Duration of stay
.82	Forms of suffrage. Voting systems
.821	Universal, equal and direct suffrage
.822	Voting systems based on level of education
.823	Voting systems based on property or means
.824	Plural vote. Family voting system
.825	Class suffrage or voting system
.826	Representation of interests. Voting by economic or official groups
.827	Representation of minorities. Proportional representation. Absolute or relative majority. Required majority
.1	Representation of minorities
.2	Proportional representation
.5	Absolute majority
.6	Relative majority
.828	Electoral divisions. Constituency polls. Multi- or single-member constituencies
.829	Indirect and other electoral systems
.83	Women's suffrage
.84	Conduct of elections, meetings, expenses, etc.
.841	Corruption. Fraud. Violence
.842	Electoral jurisdiction. Complaints
.843	Polling and voting. Electoral procedure
.1	Choice of candidates. Presentation and nomination of candidates
.32	Secret vote
.33	Open vote
.4	Control of voting or polling operations
.5	Polling procedure. Casting of votes. Voting maschines. Alternative voting
.6	Second ballot. Final ballot

342.844	Optional (free) or compulsory voting
.845	Electoral registers, rolls or lists : drawing up, checking, challenging
.846	Electoral colleges, offices or bureaux : formation, convening of meetings
.847	Counting of votes, announcement of results
.849.13	Voting by correspondence. Letter ballot
.2	Election campaigns → 324
343	CRIMINAL LAW. PENAL OFFENCES. PENOLOGY. CRIMINOLOGY → 341.4; 344; 348.05; 348.5
.1	Process of criminal justice. Criminal proceedings → 344.65; 347.9
.11	Proceedings before various courts
.12	Parties. Suits and pleas
.121	Accused. Defendants. Right to defence → 347.965
.5	Young persons' defence. Juvenile courts
.122	Injured party. Damages, etc. → 347.922
.123	Proceedings. Suits. Prosecution
.1	Preliminary proceedings
.3	Reserving of the prosecution
.4	Lapsing of the prosecution
.5	Public action,case or suit
.6	Private action, case or suit
.125	Treatment of accused up to, and including, examination
.13	Criminal procedure. Investigation. Inquests
.131	Proper procedure. Establishment of guilt
.132	Inquests. Public inquiry
.135	Dismissal of the case. Suspension of inquiry → 343.154
.139	Trial. Court hearings and pleadings. Giving and hearing evidence → 343.143

343.14	Evidence and proof in criminal suits → 343.977; 347.94
.141	Documentary evidence. Attestation
.142	Circumstantial evidence. Suspicion
.143	Proof. Examination and cross-examination of witnesses : evidence, testimony, deposition. Alibis → 343.139
.144	Examination of the accused. Rigorous questioning. Leading questions. Confession, admission of guilt
.145	Oath. Swearing (of witnesses)
.15	Judgment and legal remedies
.152	Verdict and sentence
.153	Legal force, validity of verdict
.154	Acquittal. Verdict of "innocent" or "not guilty" → 343.135
.156	Appeal
.157	Retrial. Rehearing. Quashing, annulment of verdict
.158	Revision of sentence. Petition for reduction, mercy or clemency
.159	Miscarriage of justice → 343.294
.16	Personnel and auxiliaries
.08	Duties, life, etc.
.161	Jury → 343.195
.162	Magistrates. Judges
.163	Public authorities. Public prosecutor, etc.
.164	Other persons: clerks to court, bailiffs, etc.
.17	Organisation of criminal justice in general → 347.97; 351.87
.18	Competence and jurisdiction in criminal law → 347.98
.19	Criminal courts and tribunals
.192	Police courts (generally)
.193	Courts of summary jurisdiction. Petty sessions
.195	Courts of assize. Quarter sessions
.196	Court of criminal appeal
.197	Exceptional courts. Political tribunals, etc.

343.2 Penal law. Penalties. Sentences. Reprieve. Amnesty

.01	Theory, conception and basis of penal right. Right to inflict punishment
.21	Penal law in general, its application and efficacy in time and place
.22	Punishable persons. Offenders. Law-breakers. Responsibility
.222	Imputability. Responsibility. Culpability or blame generally → 343.96
.224	Imputable or responsible age
.1	Childhood. Minority
.3	Old age. Senility
.225	Other circumstances affecting, diminishing or excluding responsibility
.23	Offences or punishable acts in general
.232	Types of offences or crimes. Felonies, misdemeanours, breaches of the law
.234	Extenuating circumstances
.235	Aggravating circumstances
.236	Attempt, failure, consummation of the offence
.237	Participation. Aiding and abetting. Complicity. Accessory
.238	Concurrence of several offences. Accumulation
.24	Penalties, sentences: nature, degree and duration → 343.8
.25	Death penalty and corporal punishment
.253	Death penalty: execution, hanging, etc.
.255	Flogging. Torture. Pillory
.26	Penalties privative of liberty. Imprisonment. Penal servitude, detention, deportation. Police supervision
.265	Conditional release → 343.843
.27	Penalties relating to goods and to the exercise of certain rights. Fines, confiscation, etc.
.28/.29	Various questions relating to penalties
.281	Conditional sentence. Reprieve (and probationary period) → 363.87
.283	Summary execution without trial. Lynch law. Vendetta
.284	Judicial admonishment. Censure

343.285 Good conduct bail or surety (and probationary period)
→ 343.87

.286 Banishment. Compulsory expatriation, exile
→ 341.4

.287 Disciplinary penalties

.288 Technical rules relating to the duration, increase and reduction of penalties
→ 343.126; 343.234; 343.235

.289 Record of decision

.291 Prescription of the penalty

.292 Pardon. Petition for pardon. Indult. Commutation

.293 Amnesty. Bill of pardon

.294 Rehabilitation
→ 343.843

.295 Death of convict

.296 Civil consequences. Civil damages. Ex delicto civil suit, etc.

.297 Collective punishment systems
→ 343.22

343.3/.7 PENAL OFFENCES

343.3 Offences against the state and administration

.301 Political crimes and offences in general

.31 Offences against the constituted authorities. High treason

.32 Offences against one's native land. Espionage. Treason

.33 Offences against foreign states, their heads of state or representatives

.34 Offences against public order and security

.341 Conspiracy. Dangerous groups and sects

.342 Instigation, incitement, provocation (to violence, civil war, etc.). Glorification of crimes

.343 Rebellion, resistance, etc. against public authority. Sabotage
→ 323.27

.5 Refusal of military service. Desertion. Conscientious objection
→ 355.015

.344 Prohibited arms (use or traffic)

.345 Mendicity, begging, vagrancy
→ 343.817; 343.89

343.346	Offences against traffic and communication safety (parking, driving, etc.) → 351.81
.347	Offences against public health, food regulations, etc. Adulterations. Quackery → 614.2/.3
.349	Offences against printing, press, colportage and billsticking regulations → 343.63
.35	Offences against public administration
.351	Embezzlement. Peculation. Malversation
.352	Bribery. Corruption of officials
.353	Abuse of authority and violation of duties inherent in a public office (refusals, delays, etc.)
.356	Usurpation of public offices, titles and honours. Wearing of decorations, uniform without right → 342.54; 343.525; 343.72
.357	Failure, fraud in performance of duties and contracts, in delivery of public supplies, etc.
.358	Violation of official seal
.359	Offences against fiscal and administrative regulations. (Currency, customs, rationing, etc.) → 336.2.04; 381.829.3
.36	Offences against the administration of justice
.361	Refusal to fulfil legal obligations, e.g. to give evidence, to serve on jury
.362	Simulation of (criminal) offences
.364	Perjury. Suborning witnesses, etc. → 343.369
.365	Personal favours to (criminal) offenders : commission, rake-off, etc. → 343.73
.367	Disloyalty, collusion, breach of trust, etc. (by lawyers or parties in a suit)
.369	Contempt of court. Corruption or bribery of judge → 343.364
343.4	Offences against fundamental liberties → 342.72/.73
.41	Offences against political rights, e.g. election rigging or fraud
.42	Offences against freedom of worship
.43	Offences against individual liberty or personal freedom → 343.62
.431	Bondage. Slavery. Slave-trade → 326

343.432 Arbitrary confinement or detention, abduction or kidnapping
→ 343.712

.433 Abduction, kidnapping of minors
→ 343.62

.434 Threats

.435 Coercion

.44 Violation of the home or domicile. Unlawful intrusion. Trespassing, etc.
→ 343.711.5; 343.77

.45 Violation of secrecy
→ 342.738

.451 Secrecy of correspondence and communication : letters, telegrams, tapping of telephones, etc.

.452 Professional secrecy
→ 343.534; 347.775; 614.253

.46 Offences against economic freedom, right to work, illegal strikes
→ 331.89; 342.734

343.5 Breaches of public credit or trust, morality and family order. Fraud. Misconduct
→ 343.72

.51 Counterfeit coining. Forgery of public credit notes. Falsification of money

.52 Documentary, identity and related forgeries

.522 Document, deed and signature forgeries

.523 Forgery of passports, licences, certificates, testimonials, declarations, etc.

.525 Assuming false names. Illegal impersonation, impostors
→ 343.356

.53 Frauds in trade and industry
→ 343.72; 381.82

.531 Fraudulent manipulation of prices. Cornering markets, buying out, etc.

.532 False declarations of weight or measure, quality, date and origin of goods
→ 381.822

.533 Infringement of trade, industrial and artistic property rights. Copyright. Illegal imitations, etc.
→ 347.77

.1 Patent rights

.2 Trade-marks and brand copyright

.3 Registrable designs. Patterns. Plans

.4 Misuse of names, plates, crests, hall-marks

.6 Illicit and unfair competition

.9 Artistic copyright infringement
→ 347.78

343.534	Betrayal of scientific, industrial and trade secrets → 343.452; 347.775
.535	Bankruptcy → 347.736
.536	Usury. Profiteering → 347.456
.54	Moral offences, outrages → 343.62
.541	Rape
.543	Sodomy
.544	Prostitution
.545	Procuring (pimps, panders). White-slave traffic
.546	Seduction, corruption of minors
.55	Offences against family order and honour → 343.62
.551	Adultery
.552	Bigamy
.56	Gaming. Betting. Gambling. Illicit lotteries and pawning establishments
.57	Drunkeness (in public)
.58	Cruelty to animals → 179.3; 351.765
.59	Antisocial offences, gross misconduct and other breaches of morality
343.6	Offences against persons → 340.62; 343.54
.61	Homicide, bodily injury → 394.8
.611	Intentional killing
.613	Duelling. Duels → 394.84
.614	Suicide → 394.86
.615	Bodily harm or injury. Assault. Battery
.617	Malevolent spreading of infections
.618	Unintentional killing or bodily injury. Manslaughter

343.62	Offences against children, the helpless or persons in need of help → 343.433; 343.54
.621	Criminal abortion
.622	Infanticide
.624	Abandonment
.625	Criminal neglect, ill-treatment
.627	Illegal exploitation, e.g. in the stage
.63	Defamation. Libel. Slander. Calumny
.64	Misuse, abuse of hypnotism → 159.962
343.7	Offences against property
.71	Larceny. Burglary. Robbery
.711	Larceny. Theft. Stealing
.4	Theft from pedestrians or passengers, pickpockets
.5	Larceny with housebreaking. Burglary → 343.44
.712	Robbery with violence. Brigandage. Piracy. Forcible seizure for ransom → 343.43
.713	Extortion. Blackmail
.72	Swindling. Cheating. Misrepresentation. Defrauding → 343.356; 343.525
.721	Trickery. Confidence tricksters, card-sharpers, etc.
.722	Embezzlement. Fraudulent conversion
.73	Receivership, concealment of stolen goods → 343.365
.74	Usurpation of ownership. Disturbances of possession
.75	Causing of flooding, submersion and (ship)wreck → 347.799.2
.76	Arson. Causing of explosions, etc.
.77	Wilful damage to property: depredations, destruction and dilapidation (e.g. from hunting, fishing, forestry) → 343.44; 347.24
.791	Legal infingements, breaches of the law in general

343.8	PENOLOGY. PENITENTIARY AND PRISON INSTITUTIONS AND SYSTEMS. CRIME POLICY, PREVENTION, DETERRENTS, ETC. → 343.24/.29
.81	Penitentiary establishments, institutions → 725.6
.811	Prisons or gaols generally
.812	Cell-detention, solitary confinement prisons
.813	Penal servitude, forced-labour or convict prisons. Galley-slavery
.814	Penal, penitentiary settlements and colonies
.815	Reformatories. Approved schools. Borstal system → 343.26; 343.88
.816	Prison asylums → 343.913; 362.2
.817	Institutions for mendicants and beggars → 343.345; 343.89; 351.763
.818	Military prisons. Fortress detention → 343.916; 344.15; 344.45
.819	Other penitentiary establishments
.3	Transit prison. Common lock-up
.5	Concentration camps
.7	Establishments for political detainees
.82	Penitentiary systems. Regulations. Prison welfare including psychiatric provision
.827	Prison discipline, supervision, punishments
.83	Prison personnel: governor, warders, almoners, doctors
.84	Punitive systems. Grades of punishment
.843	Preparation for release. Police supervision. Obligation to report → 343.265; 343.294
.85	Preventive and social measures. Crime prevention
.855	Eugenic system. Sterilization of criminals
.86	Surveillance and welfare in general
.87	Supervision and follow-up of discharged prisoners. Remission of sentence. Probation system → 361/362
.88	Supervision of juvenile offenders → 343.121.5; 343.815; 343.915; 362.74
.89	Supervision of mendicants, beggars and vagrants

343.9	CRIMINOLOGY. DELINQUENCY AND CRIME STUDY → 343.2
.01	General theories of crime and criminality
.018	Methods of research
.91	Delinquents, criminals, offenders: various types → 343.93
.911	Habitual offenders, criminals. Recidivists
.912	Occasional, impulsive offenders, delinquents
.913	Insane, totally irresponsible delinquents → 343.816; 343.95/.96
.914	Women offenders, delinquents, e.g. prostitutes
.915	Juvenile delinquents (and delinquency)
.916	Military delinquents, criminals
.917	Political delinquents, criminals, e.g. terrorists
.918	Other categories of delinquents
.1	Influence of occupation
.2	Delinquent's speciality in crimes
.919	Monographs on delinquents. Celebrated criminals, trials and criminal proceedings → 340.96
.92	Physical influences, places, season, etc. → 343.97
.93	Anatomy, anthropometry, physiognomy of delinquents. Physical appearance, features. The criminal type → 572.5; 611
.94	Physiology and biology of delinquents
.941	Heredity. Atavism
.942	Degeneracy
.95	Psychology of delinquents. Criminal psychology
.96	Pathology and psychopathology. Mental disease and criminality → 340.63; 343.913
343.97	Criminal sociology. Comparative criminology. Social environment and other factors and causes of crime
.971	Moral and psychological causes of crime Divide by :15/:17
.972	Religious causes of crime Divide by :2
.973	Economic causes of crime. Social misery and criminality Divide by :3, esp.:33
.974	Contagion of criminality: imitation, influence of gangs, etc. → 343.341

343.975 Criminal etnography. Criminality of different races
Divide by (=0/=9), but → 343.377; 572

.977 Criminal technology. Scientific criminology.
Methods of perpetration (weapons, etc.)
and investigation (finger-prints, etc.)

.979 Criminal archaeology. Historic aspects of crime

343.98 Victims : study, comparison, etc.

344 SPECIAL PENAL, CRIMINAL LAW

344.1 Military penal law

.12 Persons subject to military penal law.
Military penal jurisdiction

.13 Offences, crimes (in military penal law)

.131 Special offences: insubordination, desertion,
abuse of authority, etc.

.133 Exemption from military jurisdiction of offences
or crimes normally *falling within it*

.135 Breaches of military discipline
→ 344.15; 344.31

.14 Penalties. Punishments
→ 343.24 et seq.

.145 Disciplinary penalties or punishments

.15 Military penitentiary regime
Divide by :343.8
→ 343.818

344.2 Military penal procedure
Divide broadly as 344.3

344.3 Military justice. Courts-martial. Tribunals

.31 Peacetime

.32 Wartime

.33 During state of siege

344.4 Naval penal law

.42 Persons subject to naval penal law

.43 Offences, crimes (in naval penal law)

.44 Penalties, punishments
→ 343.24 et seq.

.45 Naval penitentiary regime

344.46	Naval judiciary organization, procedure and courts
.461	on board
.462	on land
344.6	Merchant navy penal, disciplinary regime → 347.79
.62	Persons subject to merchant navy penal law
.63	Offences, crimes (in merchant navy penal law)
.64	Penalties, punishments → 343.24 et seq.
.65	Procedure and competent jurisdictions (of merchant navy penal law)
.68	Foulings, collisions at sea → 347.796.3
347	CIVIL LAW. PRIVATE AND COMMERCIAL LAW → 34.5
347.1	Rights, juridical acts and pesr persons in general → 343.22
.113	Discrepancies between laws or decrees of the same legal system. Inter-local or -provincial civil law
.115	Autonomy of civil law. Private law of royalty. The Family Compact → 342.511
347.12	Rights in general: origin, variation, extinction
.121	Kinds of rights → 347.133; 347.21; 347.412
.122	Concepts, constituent elements of rights
.124	Movements, alterations of rights
.125	Expiry, renunciation of rights
.129	Guiding principles, maxims, axioms, aphorisms in civil law
347.13	Legal transactions, juridical acts and deeds in general. Limitation. Title, etc.
.133	Kinds of legal transactions
.135	Form of legal transactions
.136	Publicity: published orders or instructions, notice, entry in register, transcription
.138	Proviso or stipulation: deferring, resolving, protesting or objecting, retroactive

347.139 Time specification in legal transactions: fixed day, appointed time

.141 Error : Cunning, Deceit, Fraud, Compulsion, Obligation, Negligence, Responsibility, Freewill
→ 347.42; 347.442; 347.51

.142 Period, term, length of time and its calculation

.143 Prescription, lapsing (in general)
→ 347.232.4

.144 Possession (in general)
→ 347.251

.145 Self-help, taking the law into one's own hands

347.15 Natural persons. Circumstances affecting legal status and competence

347.18 Civil register. Establishment, confirmation of legal status or standing

.189 Name(s): surname, forename(s), pseudonym, title(s), etc.

.19 Civil persons

.191 Civil persons in general

.192 Constitution. Formalities

.193 Public authorities (as civil persons): State, Province or County, District or Municipality, etc.

.195 Public utility establishments. Foundations. Institutions

347.2 Realty and property laws

347.21 Things or wealth: their divisions, distinctions

.211 Material (physical) things and immaterial (spiritual) wealth

.213 Divisible and indivisible things. Constituent parts of things
→ 347.412

.214 Movable and immovable things

    .1 Movable things
    → 347.3

    .2 Immovable things
    → 347.235

.215 Commercial and non-commercial things

.216 Replaceable (fungible) and irreplaceable goods

.218 Division of things according to owner: common, public, private, etc.

347.22 Realty law: general questions, definition, etc.

347.23 Property: ownership, freehold, leasehold
→ 333

.232 Acquisition, transfer and loss
→ 347.472; 347.65

.1 Occupation. Appropriation. Reversion. Lost, stolen or otherwise missing things of unknown ownership

.2 Growth, increase of movables: specification, treatment, mixing, accretion

.3 Transfer of property. Actio Publiciana

.4 Usurpation, possession by prescription

.5 Accession (of property)

.8 Transfer, alienation, sale (among living persons)

.233 Owner's rights

.234 Limitations: expropriation, inalienability, etc.
→ 351.712.5

.235 Real, landed, domanial property in general
→ 333

.236 Feudal and derived tenure or holding rights

.1 Feudal tenures: fiefs, holdings in fee

.2 Copyhold

.3 Freehold
→ 347.254; 347.453

.237 Family estate
→ 333.31; 347.65/.66

.238 Collective and joint ownership of property

.1 Collective ownership, joint tenancy

.2 Joint ownership of boundary property

.3 Other joint ownership, e.g. floor ownership (flats, apartments)

.8 Dissolution, disposal of joint property

.239 Pre-emption rights

347.24 Realty rights and laws according to object to which they relate

.241 Vicinity and amenity rights: smoke, noise and other nuisances

.242 Rights relating to buildings and structures

.243 Rights relating to agriculture and rural estates

.246 Hunting and fishing rights
→ 343.77

.247 Rights relating to waters and hydraulic power, irrigation, etc.

347.249	Rights relating to mines. Mining law
347.25	Realty rights other than property
.251	Possession
.252	Usufruct (full use and enjoyment)
.253	Right of use or common
.254	Occupancy, dwelling rights
.255	Long lease rights
.256	Superficiary, surface (building) rights
.257	Cultivation, watering rights
.258	Concessions on public domain and property
347.26	Easements
.262	Easements in the public interest
.265	Easements of a private nature → 347.24
.266	Contractual, conventional easements
347.27	Mortgages → 347.798
.273	Establishing and maintaining mortgages : registration, transfer, renewal, expiry
.275	Assignment and transfer of amount(s) mortgaged
.276	Expiry, discharging of mortgage debt. Renunciation by creditor(s). Deterioration, loss or destruction of the mortgaged property; Claims for compensation by the creditor(s)
.277	Kinds of mortgages: legal, conventional, etc.
.278	Loan-society credits: Agricultural loans
347.28	Privileges. Preferential debts and credits. Lien
.281	Privileges, etc. on movables
.282	Privileges, etc. on real estate, sites, etc.
.283	Privileges according to type of preferential debt or credit, e.g.
: 347.451	Sale or purchase privileges
.285	Retention right
.286	Non-distrainability, unseizability
347.3	Movables in general → 347.21/.25

347.4 CONTRACT LAW. OBLIGATIONS AND BONDS. CONTRACTS. AGREEMENTS

347.41 Obligations, debts and bonds in general

.412 Types of obligations: natural, conditional, joint and several, with pledge or earnest, etc.

.413 Parties involved in obligations

.414 Joint, unlimited liablilities. Plurality of debtors and creditors

.417 Effect of the law

347.42 Effects of obligations, debts and bonds: fulfilment, default, delay

.425 Delayed or tardy fulfilment of bonds

.426 Damages, compensation or indemnity

.427 Insolvency. Inability to pay: time extension, respite, moratorium
→ 347.736

347.43 Extinction of debts and bonds

.431 Payment

.433 Remission, relinquishment; deeds of gift, receipts

.435 Transfer of debt. Novation

.439 Various causes of extinction : loss of the thing owed, resolving conditions, revoking, lapsing

347.44 Contracts and agreements in general

Stipulations, conditions for validity
→ 347.5; 347.74

.01 Types of contracts

.036 Responsibility in respect to contracts

.08 Freedom to contract (in general)

.442 Consent, assent

.443 Competence and responsibility. Legal capacity or incapacity to contract

.445 Legal grounds or argument. Reality of grounds. Illicit grounds

.446 Interpretation of contracts

.447 Third-party effects of contracts

.449 Nullity, irresponsibility clause

347.45 Particular contracts

→ 347.74/.75

.451 Sale. Cession. Purchase

.031 Purchaser's (buyer's) rights. Seller's obligations

.032 Seller's rights. Purchaser's obligations

.1 Sale on approval. Sale by sample

.2 Sale in bulk or large quantity, en masse

.3 Sale by weight and measure

.4 Sale of movables and fixtures

.6 Auctions
→ 381.17

.7 Promise of sale: Option. Quotation or tender

.8 Various methods of selling. Sale on account. Sale or return, etc.

.452 Barter or exchange

.453 Hire. Lease. Letting and renting

.031 Lessee's, tenant's rights. Hirer's, landlord's obligations

.032 Hirer's , landlord's rights. Lessee's, tenant's obligations

.038 Eviction of tenant

.1 Leasing, renting of land and rural property

.3 Leasing, letting, renting of dwellings, houses, flats, apartments and rooms. Rents

.6 Hiring of movables

.454 Hire of labour and services
→ 331.1; 347.754

.1 Work of labour contracts

.3 Negotiating labour for tenders and contracts, e.g. builders' estimates

.5 Hire of services

.455 Loans
→ 336.73

.045 Repayment

.456 Loans at interest. Usury
→ 343.536; 347.755

.457 Civil credit deeds. Notes of hand
→ 347.735; 347.797

.459 Custody. Deposit. Consignation, etc.

.461 Sequestration by agreement

347.462	Mandate. Power of attorney → 347.55
.463	Transport → 347.763; 383
.464	Interest: rents, annuities, etc. → 336.78
.03	Capitalization of interest
.3	Constitution of permanent interest: ground-rent, quit-rent, etc.
.5	Government stocks → 336.31
.7	Temporary interest
.8	Life-annuities
.465	Chance. Gaming. Betting. Time bargain. Risky or contingent contracts, e.g. Wagers
.466	Pawn. Pledge → 347.27/.28; 347.766
.467	Antichresis. Mortgage involving usufruct
.468	Bail. Guaranty → 347.27/.28; 347.768
.469	Compromise. Mutual agreement
.471	Associations. Societies. Clubs, etc. → 331.88; 342.728; 347.19; 347.72
.02	Constitutive conditions, provisos or stipulations
.03	Legal effects
.031	Members, associates
.032	Autonomy, independence (in law)
.033	Means: income, property, capital, share-money. Increase, augmentation of capital
.036	Representation. Administration. Organs. Management. Directorate
.045	Dissolution, winding-up
.1	Universal associations or societies
.6	Learned societies. Entertainment and recreational societies
.7	Religious (and philosophic) societies
.8	Idealist societies or clubs (without lucrative aims)
.472	Deeds of gift (between living persons), bounties, etc. → 347.19; 347.66/.67
.473	Gifts between spouses
.474	Gifts by marriage contract
.476	Promissory notes. Validation of disputed and unproved debt

347.5	Non-contractual obligations. Tort. Civil responsibility and liability → 347.44 et sq.
.51	Responsibility and liability in general. Employers' liability
.511	Form and conditions of responsibility or liability
.512	Responsible or liable persons
.513	Compensation for damages. Private punishments
.514	Responsibility, liability for oneself
.515	Liability for third-parties → 347.612
.516	Liability for damage by animals
.517	Liability for damage from immovable things (fixtures, trees, plants, etc.) generally
.518	Liability in respect of movables, e.g. cars and vehicles
.53	Unlawful and damageable acts, misdemeanours, etc. (not classified elsewhere under 347.5)
.55	Quasi-contracts in general. Acceptance of debts not due, etc.
.56	Occupational and professional liability, e.g.
:614.25	Liability of medical men, doctors
347.6	FAMILY LAW. HEREDITARY LAW
347.61	Family law
.611	Constitution. Kinship and relations. Marriage relationship, lines of descent, degrees removed, etc. → 347.63
.615	Responsibility, liability for maintenance and support → 347.515
347.62	Marriage. Separation and divorce law → 265.5
.621	Engagement. Promise of marriage. Breach of promise
.622	Conditions necessary for marrying: age, consent, banns, eugenics
.623	Wedding ceremony. Formalities. Civil and religious marriages
.624	Invalidated marriages. Annulment, decree of nullity → 347.627
.625	Rights and obligations of spouses: fidelity, cohabitation, etc.

347.626 Matrimonial estate or property
:347.78 Effect of marriage on artistic or literary property, copyright

.1 Statutory property

.2 Contractual property. Marriage contracts

.4 Joint acquisitions; community of acquired possessions

.5 Joint estate, community of general property

.6 Separation of property

.7 Dowry and its administration

.8 Jointure, dower or marriage settlement and other property settlements

.9 Various considerations: reversibility of contracts, commercial partnership, etc.

.97 Dissolution of joint estate or property: negotiations, limited liability of wife

.627 Dissolution. End of marriage. Divorce. Remarriage

.1 Death of a spouse

.2 Divorce

.02 Grounds for divorce: adultery, insanity, incompatibility, etc.
.028 Mutual consent to divorce

.08 Divorce proceedings: Decrees nisi and absolute

.3 Judicial separation

.4 Remarriage: limitations, conditions. Second and third marriage

.628 Personal unions other than conventional marriage. Secret and unrecognized marriages. Free union. Concubinage. Marriage by proxy, etc.
→ 392.54; 613.89

.3 Morganatic marriage

347.63 Filiation or descent. Parents and children. Paternity

→ 362.7

.631 Legal or judicial filiation. Legitimacy of descent

.632 Natural filiation, illegitimacy of descent. Bastardy, legal status of natural children
→ 347.643

.633 Adoption. Foster-parentage
→ 347.64; 362.734

.634 Parent/child relationship in law. Parental authority.

→ 347.64

.635 Upbringing, education and personal care of the child

.636 Care and management of private means or property of the child

347.637	Supervision and control of the exercise of parental authority. Child protection → 362.7
.639	Orphans and their legal status
347.64	Guardianship, trusteeship and custody of minors, invalids and handicapped → 361/362
.641	Age and legal status of minors and majors
.642	Minority: guardianship and custody of minors generally
.643	Kinds of guardianship or custody: legal, testamentary, of natural children, etc.
.644	Guardian or trustee authorities
.645	Duties and functions of guardians
.646	Majority: attainment, declaration. Care of (premature) majors
.647	Mentally sick or handicapped, insane: guardianship and custody
.649	Physically sick and handicapped: guardianship and custody
347.65	Hereditary law. Succession rights
.659	Escheat (vacant succession or forfeiture)
347.66	Inheritance rights. Heirs and heritage
.661	Available inheritance. Disinheritance, etc.
.662	Transmission of heritage: acceptance, renunciation, seizin
.663	Heirs or inheritors: rights and obligations
.664	Apportionment and liquidation of personal estate
347.67	Wills. Bequests, legacies
.672	Kinds of wills or testaments
.673	Bequeathers and beneficiaries: legal capacity, competence
.674	Making of wills: conditions, altering, revoking of wills
.676	Execution of wills. Executors
.68	Special kind of succession, e.g. by agreement

347.7	COMMERCIAL LAW. COMPANY LAW → 347.999
347.71	Commercial transactions. Business concerns and people → 347.774; 381
.711	Transactions. Commerciality
.712	Businessmen. Merchants, tradesmen, shopkeepers, etc. : business instinct, conditions for doing business
.714	Trade and commercial registers → 380.16
.715	Business houses. Trading funds and capital. Branch establishments, etc.
.716	Power of attorney in business or commerce
.717	Agents, employees, clerks, commercial travellers
.719	Traders' books. Accounts → 347.728; 347.735/.739; 657
347.72	Commercial associations. Partnerships. Companies → 061.5; 347.471; 658.1
.01	Nature, definition, character. Profit consciousness
.02	Constitution: legal conditions for establishment
.028	Formalities. Charter. Company statutes, articles, etc.
.3	Publication of balance, profit and loss accounts
.5	Administrative formalities: government intervention, recognition, etc.
.03	Effects of company articles
.031	Partners, shareholders
.032	Corporate personality, third-party relationships
.033	Means, funds, wealth. Capital
.034	Shares. Company stocks and shares
.035	Profits and losses. Dividends
.036	Representation and administration. Board or Council. Directorate. Auditors, etc.
.037	Legal transactions and control
.04	Changes, dissolution, amalgamation or merger → 65.016
347.721	Grouping. Syndicates
.722	Firms with collective name. Partnerships
.723	Limited partnerships

347.724	Private (limited) companies
.725	Public (joint-stock) companies
.726	Co-operative societies → 334
.727	Other companies according to object
.728	Special questions of company law → 347.719; 347.735/.739
.1	Accounts, balance sheets
.2	Shares → 336.763.2; 347.735
.3	Bonds, etc. Rights and representation of bond-holders, etc. → 336.763.3
.4	Public issues. Stock-jobbing
.5	Liquidation and apportionment
.6	Legal position of foreign companies
.7	Penal provisions
.8	Fiscal law. Licences, etc. → 336.2
347.73	Commercial institutions. Financial law
.731	Intermediary commercial institutions → 381.1
.1	Stock exchanges → 336.76
.2	Markets. Trade marts and fairs
.3	Exhibitions → 061.4
.4	Chambers of commerce → 380.15
.732	Middlemen: brokers, commission agents, ship- and insurance-brokers, etc.
.733	Trusts, cartels, monopolies formed by cornering or buying out → 343.531
.734	Banks and banking → 336.71
.735	Credit and credit deeds → 347.457

347.736	Insolvency. Failure. Suspension of payment. Bankruptcy → 343.535; 347.427
.5	Administration of insolvent or bankrupt estates. Liquidation measures → 347.739
.6	Officials, commissions, courts, receivers, etc. Liquidators
.7	Judiciary decisions on insolvency or bankruptcy : claims, redress
.8	Special insolvency proceedings. Bankruptcy proceedings
.738	Discharge, suspension of bankruptcy proceedings
.739	Compulsory liquidation (by court order)
347.74	Commercial contracts and bills → 347.44 et seq.
.741	Commercial contracts in general
.745	Bills. Negotiable instruments
.746	Bills of exchange
.747	Notes to order. Bills on bank
.748	Cheques
347.75	Contracts with a commercial character → 347.45/.47
.751	Sale and purchase
.752	Barter or exchange → 336.745
.754	Hire of labour → 347.454
.755	Commercial loan. Interest. Usury → 347.455/.456
.756	Carry over (contango) → 347.766
.757	Opening of credit
.758	Current account
.759	Deposit, consignment
.761	Sequestration
.762	Mandate, commission
.763	Communication. Transport. Mail → 347.463; 347.795
.764	Insurance → 368

347.765	Chance. Time operations and bargains → 347.465
.766	Pledge, pawn, bottomry → 347.466; 347.756
.767	Warehousing. Warrants and schedules → 347.759
.768	Security. Guaranty. Surety → 347.468
.769	Arrangement. Compromise. Compulsory arbitration
347.77	Industrial and scientific ownership rights. Patent and trade-mark law → 343.533; 608
.01	Nature, definition. Rights on deposit, inventor's rights. Application for patent
.012	Patentability. Novelty. Inventive value. Industrial effect of applicability
.013	Mutual dependence, reciprocity of patents
.014	Clashing, concurrence of identical or partially identical patent applications
.018	Priority right. Provisional protection
.02	Validity, stipulations, conditions for existence of rights. Exploitation proviso
.023	Subject of the law. Inventor's and patent rights of employees
.025	Object of the law
.028	Forms of the law. Presenting, examining of applications. Granting of legal title
.1	Deposit
.3	Description of invention
.4	Examination of application, incl. preliminary scrutiny
.6	Publication of application
.7	Objections, complaints from third-parties
.8	Withdrawal, rejection, release of patents
.03	Effects of the law. Extension and sharing of rights
.04	Alteration, transfer and annulment of rights
.043	Cession, ceding of rights. Licences
.046	Duration of rights

347.771	Patents
.772	Trade-marks → 381.822
.773	Registrable designs, patterns and plans → 347.783
.774	Business names, plates, crests, hallmarks
.5	Indication of place of origin
.775	Secret processes. Trade secrets → 343.534
.776	Illicit, unfair competition → 343.533.6; 381.81
.777	Publicity. Advertisements
.778	Scientific ownership. Discoveries
.779	Administrative organization. Patent offices, etc.
(100)	International organization(s) for industrial ownership, patents, etc.
.1	Industrial ownership bureaux. Patent offices generally
.2	Patent courts or tribunals. Judges, comptrollers, etc.
.3	Patent agencies, attorneys, agents
347.78	Literary and artistic ownership rights. Copyright. Performing rights → 343.533
.01	Nature, definition. Author's or artist's ownership rights
.02	Validity: stipulations, conditions for existence of rights
.03	Effects of the law. Extension and sharing of rights
.031	Copying or reproduction. Publishing
.032	Adaptations, arrangements
.033	Performance, execution, public reading, etc.
.034	Translation
.035	Exhibition
.04	Alteration, transfer of rights. Sale. Copyright reservation
347.781	Literature. Written and printed works. The spoken word Denote literary and external forms by :82-1/-9 and (0...)
.8	Spoken word. Speeches. Recitations. Sermons, etc.
.782	Painting, stage decorations, etc.
.783	Graphic arts. Photographs. Maps → 347.773

347.784	Plastic arts. Sculpture
.785	Music, opera, ballet. Performing and broadcasting rights
.786	Theater. Dramatic and film(ing) rights
.787	Architecture, monuments, decorative arts
.788	Special questions of ownership and copyright
.1	Publishing contracts → 655.52
.2	Compulsory legal deposit
.4	Forgery of art works in general → 343.533.9; 7.061
.6	Right of criticism and right of rejoinder
.789	Administrative organization for copyright
(100)	International organization(s) for copyright
347.79	Maritime law. Shipping, navigation law → 341.362; 344.6; 347.998.6; 351.813; 656.6
.791	Merchant ships or vessels
.1	Purchase, sale and resale. Sale with redemption or repurchase right
.2	Design and construction, rigging, armament, etc. Tonnage. Launching
.3	Administrative formalities. Registration (in shipping register). Nationality and (flag)colours. Charter
.6	Sequestration, confiscation of ships. Compulsory sale
.792	Ownership: shipowners, companies, etc. Charterers, and freighters. Right at sea
.793	Crew: hire, enrolment and signing-on
.1	Master or captain
.5	Officers. Seamen, stewards and other hands
.6	Medical personnel, ship's doctor, nurses
.7	Pilots
.8	Dock and part personnel
.794	Chartering. Hire. Freighting
.795	Sea and waterway transport. Bills of lading
.3	Cargo, freight or merchandise transport
.4	Passenger transport
.5	Lading and unlading : contracts, lay-days, demurrage
.6	Towing

347.796	Maritime losses and damages. Averages
.1	Small, simple or particular averages
.2	Heavy and common averages
.3	Damage by fouling or collision → 344.68
.797	Maritime credit or loan. Bottomry
.798	Naval pledge. Maritime mortgages and preferences
.799.1	Shipping routes or lanes. Navigation rules and codes. Signal-lights, etc. → 627.9; 656.6
.13	Inland navigation law
.2	Shipwreck. Sea-accidents. Sea rescue and aid. Receivership of wreck. Wreckage, flotsam and jetsam
.4	Protection of merchant ships. Naval convoy. Mutual defence measures. Defence against pirates → 343.712
.6	Types of shipping traffic: merchant shipping, fisheries, sport and pleasure boating
347.8	AIR, SPACE, ETHER AND BROADCASTING LAW → 341.229
= .81	(Air law) → 347.82; 656.73
347.82	Air law → 351.814; 656.7
.821	Freedom of the air → 347.823
.1	Right of free passage
.2	Landing for non-commercial purpose
.3	Transport from the home country or state to another
.4	Transport from a contracting state to the home country
.5	Transport between any two states or countries
.822	Aeronautical administration. Air traffic control and safety → 351.814
.07	Administrative bodies ≙ 35.07
.2	Functions of the aeronautical administration : regulations, licences, construction, provisos, entry/departure permits → 380.84

347.822.3	Air police → 351.749.3
.4	Air traffic control → 656.05
.5	Aviation meteorological service. Flight weather service → 551.5
.823	Scope, subject of public and private air law
.1	Air space. Air sovereignty. Freedom of air space → 347.821
.2	Ground layout, infrastructure
.21	Aerodromes, airports, airfields, landing grounds, gliding sites: regulations concerning use, personnel → 629.7.08; 656.71; 711.553.9
.3	Aircraft: legal status and types → 629.7; 656.7
.33	Nationality, national markings of aircraft
.34	Air worthiness: certificates, log books
.35	Flying permission
.36	Private law considerations, e.g.
:347.451	Purchase
:656.076.3	Charter
.37	Special legal questions. Precautionary attachment of aircraft
.4	Air crews, pilot and flight personnel, stewards
:331.116	Labour contracts
.824	Civil air traffic law(s)
:656.73.022.4	Opening of commercial air line services
.2	Air navigation liability, e.g.
:656.7.045.7	Owner's third-party liability
.4	Aviation, flight insurance law, e.g.
:368.1	Freight or baggage insurance
.3	Personal or passenger (life) insurance
.826	Air criminal law Details by :343
.827	Military and naval aviation law Details by :355/359 → 341.363; 344.7

347.828	Air-raid protection (ARP) law → 351.749.4; 355.58; 699.85
.2	Compulsory personnel service
.3	Compulsory materials service
.4	Air-raid protection conduct
.6	Penalties
347.83	Ether, broadcasting law → 341.229; 654.19
.836	Radio and TV transmission and reception
.837	Nuisances arising: atmospherics, etc.
347.85	Space law → 341.229
347.9	PROCEDURE. JUDICIARY PERSONNEL, ORGANIZATION AND COURTS OF LAW → 343.1; 344; 348.058; 351.87
347.91/.95	Civil proceedings
347.91	Particular proceedings
.918	Arbitration: proceedings and courts
:38	Commercial arbitration
.919	Special practices in various legal matters
.1	Matters for voluntary jurisdiction
.2	Judicial acts of grace. Confirmation, ratification of contracts and judgments
.3	Simplified procedure for petty cases
.6	Emergency procedure. Putting under seal
.7	Summary proceedings
.8	Disciplinary proceedings
347.92	Litigation. Juridical details
.921	Parties to process
.1	Actionability, capacity to appear or plead in court
.2	Litigants, disputing parties. Cumulative suits. Plaintiff or complainant. Defendant
.3	Third-party participation in proceedings

347.921.4	Attorneys (lawyers or solicitors)
.5	Intervention of the public prosecutor, Attorney-General
.6	Costs of litigation. Tariffs, taxes
.8	Legal aid. Free litigation
.922	Civil actions or lawsuits (in general)
.1	Prescription, lapsing of suits
.3	Stipulations, conditions for civil actions
.6	Kinds of civil action or lawsuit. Petitions, etc.
.7	Accumulation of civil actions. Competition between civil and criminal lawsuits. Extension of lawsuits to third-parties
.923	Writ against defendant. Summons. Citation
.924	Litiscontestation. Answer to claim
.925	Conciliation
.926	Right of defence in general
.927	Exceptions and pleas to bar. Admissibility: pendency
.928	Cross-suits. Counterclaims. Fresh claims
347.93	Judiciary formalities. Hearings. Pleading
.931	Documents in the case
.932	Sessions: adjournments, official holidays, etc.
.933	Nullities. Foreclosures. Defaults and errors
.934	Examination of the matter. Entering on cause list, etc.
.937	Various incidents
.1	Suspension, non-suit, resumption
.2	Desistance or renunciation. Compliance
.3	Disownment by public authority
.4	Judge's ruling. Reference to another court
.5	Rendering of accounts, liquidation of costs
.938	Commisssions of inquiry
.939	Hearing, calling, argument, minutes, etc. → 343.139
.7	Court police, ushers, etc. Closed or private hearings
347.94	Evidence, oath, swearing in
.941	Evidence (in general)
.942	Documentary evidence (writing, signs, etc.)

347.943	Direct evidence or testimony of witnesses → 343.36
.944	Admission or confession of party
.945	Judiciary oath → 343.364
.946	Presumptions. Reputation
.947	Visiting the scene. Personal inspection
.948	Expert evidence, appraisement
.949	Burden of proof
347.95	Judicial decisions. Judgments. Execution. Methods of appeal
.951	Judgments, decisions (various kinds)
.01	Formation, pronunciation and formalities
.02	Legal notice, announcement
.03	Recording, registration
.04	Interpretations, explanations
.1	Judgment by default
.2	Kinds of judgment: provisional, intermediate or interlocutory decree, final decision
.3	Court decisions, decrees. Sentences
.952	Execution of judgments. Warrants for seizure, distraint, attachment. Forfeiture. Sequestration. Imprisonment
:341.5	Execution of judgments given abroad
.1	Distraint, seizure, confiscation, forfeiture of movables
.2	Confiscation, forfeiture, dispodal of immovables, land or fixed property, e.g. by auction
.3	Voluntary execution, sale or forfeiture
.4	Kinds of seizure: distraint, attachment, forfeiture, etc
.5	Attachment or seizure of third-party property: Objections, custody
.6	Provisional execution of judgments
.7	Sequestration, temporary confiscation or forfeiture of property
.8	Distribution of proceeds to creditors, order of priority
.9	Imprisonment (for debt) → 343.24; 343.8

347.953	Chose jugée. Finally decided cases. Irrevocable judgments or decisions
.954	Postponement of sentences
.955	Remedies, redress in general (against court decisions)
.956	Appeal. Appeal proceedings. Second instance
.6	Kinds of appeal
.7	Effect of appeal
.957	Annulment, cassation, quashing, reversal of sentence : Application. Examination and proceedings
.958	Other remedies or redress against court decisions : third-party objection, civil petition, etc.
.959	Nullity proceedings
347.96	Judiciary personnel. Lawyers → 343.16
.961	Notaries public. Commissioners for oaths. Notatriat,deeds,etc.
.1	Status, prerogatives, competence
.2	Admission to notaryship
.3	Duties of notaries
.4	Declarations. Deeds, etc.
.5	Choice of notary or commissioner (by civil parties)
.6	Responsibility of notaries
.7	Fees, stipends, payment of notaries
.8	Corporate organisation. Chambers of notaries public
.962	Magistracy. The Bench. Judges. Magistrates
.1	Status, prerogatives and competence
.2	Appointment, augmentation of number
.3	Duties, obligations of judges and magistrates
.6	Responsibility of judges and magistrates
.7	Salaries, stipends, fees of judges and magistrates
.963	Public prosecutor ≙ 347.962
.964	Auxiliaries of justice
.1	Solicitors. Attorneys, etc. ≙ 347.961
.2	Registrars. Clerk of the Court ≙ 347.962
.3	Bailiffs, Court ushers, etc. ≙ 347.961
.4	Valuers, sworn surveyors, assessors, etc.
.9	Executive officers in general

347.965 Counsel. Barristers. Advocates. The Bar

.1 Status, prerogatives, competence of counsel

.2 Admission to the Bar

.3 Duties, obligations of counsel

.4 Professional activities. Advocacy, etc.

.45 Defence in Court

.6 Responsibility of counsel

.7 Salaries, stipends, fees of counsel

.8 Corporate organisation of counsel. The Bar

347.97/.99 Organization, administration of justice
→ 343.17

.97 Generalities. Legal or Court language. Lawyers

.98 General competence, jurisdiction and prerogatives of courts of justice

.99 Types of civil courts or tribunals and their special jurisdictions
→ 343.19; 344.3; 348.058

.991 Supreme courts of justice. Supreme Court of Appeal (U.K.)
→ 342.531

.992 Supreme Court of Judicature. Court of Appeal and High Court of Justice (U.K.)

.993 First instance (circuit) courts. County courts

.994 Special jurisdictions (Judge's orders, etc.)

.1 Urgent cases or suits. Trial in Chambers

.2 Issue of provisional orders or decrees

.995 District courts (Commissioner's, etc.)

.997 Common (routine) jurisdictions, e.g. in colonies
→ 340.141

.998 Various jurisdictions and tribunals

.4 Industrial tribunals

.6 Maritime courts or tribunals
→ 344.46; 344.65; 347.79

.7 Arbitration, conciliation courts or tribunals

.72 Arbitration courts
→ 331.15

.74 Conciliation or mediation tribunals
→ 331.154

.8 Extraordinary, exceptional jurisdiction

.85 Administrative tribunals

.999 Commercial jurisdiction. Commercial courts. Consular tribunals

348	**ECCLESIASTICAL AND CANONICAL LAW** → 172.3; 261; 351.857
348.01	**Sources in general**
348.03	**Church organisation. Ecclesiastical persons** → 348.072
.031	Ecclesiastical authority: Relationship to secular authority
.032	Ecclesiastical offices. Church dignitaries
.8	Religious associations and communities. Juridical (moral) persons in ecclesiastical law
.82	Lay societies and relevant canonical law
.83	Religious communities
.84	Ecclesiastical welfare establishments, e.g. nursing associations → 361/362
.85	Ecclesiastical educational establishments → 37, esp. 37.014.52
.86	Missionary establishments
.033	Hierarchy of holy orders, of ordained ministers
.034	Ecclesiastical persons. Spiritual status → 348.072
348.04	**Ecclesiastical things**
.041	Spiritual things. Worship, etc.
.1	Public worship. Religious or divine service
.2	Sacraments
.3	Times of worship. Holy periods, festivals, etc.
.4	Places of worship. Holy places
.5	Religious burials
.6	Religious teaching and teachers
.042	Property, land, etc. Ecclesiastical property law → 348.073
348.05	**Penal ecclesiastical law**
.051	Penal procedure, proceedings and offences (in ecclesiastical law)
.052	Penalties in ecclesiastical law
.055	Particular offences, sins, transgressions and their punishment
.058	Ecclesiastical courts and litigation

348.06 Private ecclesiastical law
→ 347

348.07 External or civil ecclesiastical law

.071 Relationship of Church and State (ecclesiastical law)
→ 322; 342.731

.1 Freedom of worship. State religion. Separation of Church and State. Concordats

.5 Rights and privileges of the State

.7 Co-operation of Church (with State), e.g. in education, welfare nad missions
→ 348.032.84/.86

.072 Juridical or legal persons in ecclesiastical law
→ 347.19; 348.034

.073 Ecclesiastical wealth and possessions. Benefices, livings, etc.
→ 348.042

348.1/.7 Roman Catholic ecclesiastical law
(Alternatively use 348.82)

.1/.6 Canonical law
≙ 348.01/.06

.1 Sources: Holy Bible, canonical jurisprudence, acts of the Holy See

.3 Organisation and government. Ecclesiastical persons
≙ 348.03
→ 262

.4 Ecclesiastical things: ceremonies and sacraments; temporal patrimony, revenues, etc.
≙ 348.04

.5 Penal canonical law and church discipline: offences or misdemeanours, penalties, courts, etc.
≙ 348.05
→ 262.9

.6 Private canonical law
→ 347

.7 Civil Roman Catholic ecclesiastical law
≙ 348.07

348.8/.9	ECCLESIASTICAL LAW OF THE VARIOUS RELIGIONS, CHURCHES, ETC. ≙ 28/29 using the .01/.07 auxiliaries as required
348.819	Orthodox ... Western Churches
.3	Russian Orthodox church law
.4	Greek Orthodox church law
.5	Romanian Orthodox church law
.61	Serbian Orthodox church law
.62	Bulgarian Orthodox church law
.82	Roman Catholic church law (But see 348.1/.6)
.83	Anglican church law
.84	Continental Protestant church law
.841	Lutheran church law
.842	Reformed church law
.85	Presbyterian church law
.87	Methodist church law
.94	Buddhist and Hindu ecclesiastical law
.96	Judaistic ecclesiastical law
.97	Islamic ecclesiastical law
.995.2	Shintoist ecclesiastical law

35.07/.08 Administrative bodies, organs and personnel (applicable throughout the whole of class 3)

35.07 Administrative and governing bodies: organization and activities

.071 Institution, establishment, development of administrative bodies

.1 Establishment. Creation. Foundation

.2 Development. Growth

.3 Rights and privileges. Status. Statutory charter, etc.

.5 Scope, limits, regional divisions, departmentalization

.072 Relations with other public bodies

.1 Independence, autonomy. Centralization. Decentralization

.2 Interposing of superior authorities. Administrative conflicts and tutelage. Co-operation. State supervision

.3 Collaboration of authorities and administrations. Assistance

.4 Dissolution, disbandment, deposition by superior authorities

.5 Substitution, replacement by other bodies

.6 Inspection. Control. Supervision

.7 Intervention of administrative subordinates other than by election

.8 Financial relations

.073 Economic and legal position

.1 Civil law consequences of public decisions

.5 Property and possessions. Economic Administration of property. Interest

.51 Property not intended for public service or use

.52 Finances. Estimates. Budget and accounts ≙ 336.12

.53 Requirements. Resources. Supply

.54 Public buildings, premises and sites. Space requirements

.55 Ordinance: regulations, complaints, criticism, errors

.6 Revenue, receipts from services rendered. Taxes

.074 Formation, existence, termination or dissolution of administrative bodies

35.075 Organs, councils, committees. Office-holders, offices, etc.
→ 35.08

.1 Top, superior organs. Representative bodies. Councils, etc.

.2 Executive organs. Offices

.3 Office-holders
→ 35.08

.5 Offices, headquarters., divisions, departments, secretariats, etc.

.6 Supervisory staff

.7 Joint organs and committees of several authorities. Advisory committees

.8 Commissioners or representatives. Deputies of superior authorities

.076 Prerogatives, competence of administrative organs, committees, etc.

.077 Official business, activities and records

.1 Management, administrative activity

.2 Administrative business, proceedings, transactions

.3 Security procedure and formalities

.5 Meetings and conferences. Publications

.6 Decisions, regulations, orders, emergency decreed

.7 Official papers and files. Reports, etc.

.91 Destruction and preservation of papers and files

.078 Forms of administrative activity, government intervention, control, protection, etc.

.1 Government intervention in general

.2 Issue of regulations, orders, decrees, etc.

.3 Control and supervisory activity, checking, inquiries, etc.

.4 Direct activation or participation

.5 Direct financial,material and moral support. Encouragement. Patronage. Subventions or grants

.6 Indirect support, loans, concessions

.7 Intervention in special cases, e.g. in times of crisis

.8 Suspension, suppression of administrative activity. Release

35.08 Administrative personnel. Staff. Public emplyees. Officers. Officials

.081 Distinctive characteristics of service

.6 Ranks. Honours. Uniforms,badges, etc.

.7 Relation between personnel and authorities
→ 331.152

.71 Legal status, position of personnel and staff

.74 Staff councils

.082 Appointment, promotion, tenure of office, release

.1 Aptitude, suitability requirements. Examinations. Probationary period

.2 Attributes, qualities, qualifications

.3 Appointment, nomination, election

.4 Promotion. Advancement in rank and exercise of office or function
→ 35.084.7; 35.087.3

.5 Incompatibility of offices or functions

.6 Official oath of service. Swearing allegiance
→ 35.083.5/.8

.7 Sex. Women in public posts

.8 Release. Retirement. Discharge. Dismissal from public service

.083 Duties and obligations. Loyalty allegiance
→ 343.35

.1 Official power of authorities over their staff

.3 Place of service and residence

.4 Security of office. Guaranty

.5 Duty towards the service

.7 Duty to obey. Loyalty
→ 35.082.6

.8 Official secrecy. Discretion

.9 Forfeitures in virtue of office. Privileges requiring authorisation

.91 Acceptance of foreign titles or orders

.94 Acceptance of gifts, money, goods, property

.084 Categories, grades and hierarchy of officials and public employees

.1 Established staff, officials, workers, technical personnel

.5 Salaried and unsalaried officials. Honorary functions or offices

.7 Hierarchy of officials
→ 35.082.4

.8 Structure, composition, cadres of the civil service as a whole

35.085	Official powers, competence and functions
.086	Responsibility of officials → 343.35
.087	Rights, prerogatives, immunities, etc. of officials
.1	Right to an office or function. Security of office
.3	Right to promotion → 35.082.4
.4	Financial rights: remuneration, pay, salaries and insurance
.41	Regular pay, salaries, stipends, wages : scales, minimum rates, seniority
.42	Supplements to salary. Allowances. Weightings, etc.
.43	Pensions. Superannuation
.44	Insurances
.5	Family and dependants' rights
.8	Legal remedies or redress for officials and their families in support of their rights
.088/.089	Working conditions, facilities, organisation and other personnel problems .088.2/.9 ≙ 331.82/.89 and .089 ≙ 331.9, e.g.
.088.2	Working conditions, hours, etc.
.089.7	Incentives, gratituities, etc.
351	PUBLIC SERVICES. GOVERNMENT LEGISLATION AND CONTROL. MEASURES, REGULATIONS, RESTRICTIONS, ETC.
:69	Building administration, legislation, etc. → 351.778.5
351.71	Public properties. Public works. Sources of revenue
.711	Public property, domain or estate and ist administration Divide by :333 and :339.3
.712	Public works in general
:625.7	Public highway construction
.1	Decision on execution of works
.2	Negotiation of works, materials and equipment for (executing) authorities
.023	Persons entitled to negotiate works
.025	Plans. Projects. Estimates
.028	Award (of contracts). Specifications, bills of cost

351.712.2.031	Modifications. Approval. Authorization of works
.032	Obligations of authorities (cost, control, etc.) and corresponding rights of contractors
.033	Obligations of contractors (completion, etc.) and corresponding rights of the authorities
.043	Transfer of contracts. Sub-contracts
.045	Completion and termination of contracts
.4	Public works and supplies under the control of the authorities
.5	Requisitions, e.g. for altering frontages → 33.11; 347.23
.6	Elimination of obstacles to execution of public works
.7	Association of property owners for joint execution of public works, e.g. poldering → 352.792
.713	Fiscal legislation. Rates and taxes → 336.2
351.72	Public means, finances, funds. Financial legislation → 336.12
351.74	Police, civil guard, constabulary → 343.977; 355
:061.1(100)	Interpol (International Criminal Police Commission)
.741	Police force, constabulary: general organisation
.742	Gendarmerie
.743	Civic guard or militia. National guard
.744	Rural police(field, forest, etc.) → 343.77
.745	Local, municipal, provincial police
.746	Various kinds of police
.1	Political police. Secret state police. Frontier police or guards → 351.755/.756
.2	Private investigators, detectives
.3	Sworn private guards, security guards
.5	Unsworn guards and watchmen
.749	Special service police → 351.756; 351.764; 351.77; 351.81
.2	Port, river, coast and sea police
.3	Air police. Airport police
.4	Emergency police (gas attack, air-raid, etc.) → 355.58

351.75 Public order and security measures, controls and regulations

→ 342.72/.73; 343.34

.751 Thought, speech and writing. The Press, printing, broadcasting, etc.
→ 351.754.1

  .5 Censorship
  → 070.1

.752 Right of association and assembly

  .1 Association or congregation; private and secret societies, etc.

  .175 Gaming clubs
  → 351.762

  .2 Meetings and assemblies

  .23 Open-air mettings and assemblies
  → 351.754.1

.753 Arms. Munitions. Explosives

  .3 Traffic in arms. Sale and use of firearms

  .6 Ammunition. Explosives

.754 Highways. Streets and squares: obstructions, cleanliness and safety

  .1 Unlawful assembly
  → 351.752.2

  .2 Parking, waiting or otherwise blocking streets

  .3 Riots, disturbances of the peace

  .5 Processions, demonstrations, rallies, religious services, etc.

  .6 Cleanliness: litter, etc.
  → 351.777.614

  .7 Safety of public haighways: dilapidated buildings, etc.
  → 351.785

  .9 Minor obstructions: street sellers, musicians, etc.
  → 351.759.4

.755 Nationals: status, registration, passports, etc.
→ 347.18

  .1 Names and titles

  .2 Civil status. Civil registers and registry offices

  .3 Population and census registers
  → 312

  .5 Signatures: authentication, attestation, verification

  .6 Particulars of nationals. Issue of passports, identity papers, certificates of (good) conduct

351.756 Foreigners or aliens: naturalization, passport and visa control
→ 351.746.1

.757 Hotels, inns and lodgings: supervision and control

.758 Public buildings and meeting-places : supervision and control

  .1 Performances, displays: theatres, cinemas, casinos, concert and dance-halls, etc.
  → 351.751; 351.758.3

  .2 Markets, fairs and fairgrounds

  .3 Public houses, cafés, cabarets and night-clubs
  → 351.758.1; 351.761

  .31 Police hours, opening and closing times

  .5 Places for religious meetings: churches, temples, etc.

.759 Other security and control measures

  .1 Legal time

  .4 Noise and neighbourhood nuisances (barking dogs, over-loud radios, etc.)
  → 351.754.9

  .5 Protection of property. Receivership of stolen goods, of wreckage. Treasure trove

  .6 Special measures to ensure order and security. Requisitioning, etc.

351.76 Public morality and morals: regulations and restriction
→ 17; 343.5

.761 Alcohol. Narcotics
→ 178; 343.57; 351.758.3

.762 Games of chance, gambling and betting
→ 351.752.175

.763 Begging and vagrancy
→ 343.345; 343.817; 343.89

.764 Prostitution and immoral practices
→ 176.5; 343.54

.765 Protection of animals (domestic, performing, wild). Destruction of noxious animals
→ 179.3; 343.58; 351.779; 502.74

.766 Combating immorality and vice

351.77	**Public health, food and housing: legislation and control** → 614; 628
.773	Health and food inspection, control → 614.3
.137.127	Milk inspection and control
.513	Meat inspection and control
.774.7	Immunization, inoculation and vaccination control
.776	Disposal of the dead. Cemetery and crematorium control
.3	Post-mortem examination. Coroner's inquest
.777	Control of air, soil and water pollution
.51	Supervision of construction of buildings used for harmful or noxious products
.613	Control of wastes and effluents
.614	Street hygiene measures → 351754.6
.8	Urban or town hygiene
.778	Food and water supplies. Housing legislation and control
.2	Food supplies. Household goods
.31	Water supply
.5	Housing. Legislation and control → 333.32; 728.1
.51	General building requirements → 351.785
.511	Authorisation to build
.52	Improvement of (existing) housing conditions, overcrowding, etc. Repairs, demolition, etc.
.53	Improvement of the housing situation. New housing schemes, programmes, etc.
.531	Without public aid
.532	With public aid
.533	With private funds
.534	Temporary housing. Temporary (emergency) dwellings, huts, etc.
.54	Location, use, allocation, etc.
.541	Rent fixing. Restrictions
.542	Tenant protection
.545	Procuring dwellings
.56	Housing offices, lists, etc.
.57	Census, inventory, counting of houses

351.778.59	Problems and measures relating to mobile dwellings, cemetery and airport proximity, etc.
.591	Mobile dwellings: use of caravans and houseboats as dwellings
.592	Proximity of dwellings to cemeteries
.593	Proximity of dwellings to airports
.779	Animal health. Veterinary control → 351.765; 614.9; 619
.8	Official vets
351.78	Public safety measures
	Divide by :614.8
.785	Safety measures concerning buildings. Building inspection and control → 351.754.7; 351.778.51
351.79	Administration of waters and hydraulic works
	→ 351.813
.791	Rivers. Canals
.14	Water-level service and measures
.792	Irrigation, drainage and poldering measures → 351.712.7; 352.91
.793	Hydraulic power, damming and dike works
.1	Maintenance of dams, dikes, etc.
.18	Dike bursts and relevant measures
.191	Works done by or for third-parties (on dams, dikes, etc.)
.2	Supervision, inspection of dikes, dams, etc.
.797	Sea and coast works. Coast protection measures
.798	Subsidence (of ground) and relevant measures
351.81	Communications. Traffic. Transport
	Divide by :625 and :656
.811	Highway or road traffic
.11	Maintenance and measures in respect of roads, bridges and vehicles
.111	Road construction, improvement and accessory works
.3	Maintenance and repair of rroads and streets
.5	Lighting of roads and streets

351.811.112 Bridge construction, improvement and accessory works
.3 Maintenance, protection and repair of bridges
.5 Lighting of bridges
.113 Road regulations for vehicles, e.g. restrictions on heavy vehicles
.12 Traffic control and supervision on roads and bridges
.122 Traffic regulations
.1 for pedestrians and riders
.2 for horse-drawn vehicles, animal-drawn vehicles
.3 for motor-vehicles, cars, motorcycles, etc.
.5 Various traffic regulations, measures, signs, etc.
.56 Movable traffic signs
.123 Vehicle control, road tax regulations, etc.
.2 Technical check or testing of vehicle (roadworthiness, etc.)
.812 Rail traffic
→ 656.2/.4
.1 Tramways
.3 Light railways
.5 Railways
.8 Branch lines for private and industrial use
.813 Waterway, port , harbour nad roadstead traffic
→ 347.79; 351.79; 656.6
.11 Waterway, canal maintenance measures
.12 Port maintenance measures
.2 Traffic control and supervision in navigable waters
.22 Water traffic regulations
.23 Vessel or craft control and supervision

351.814 Air traffic and transport. Airways
→ 347.82; 629.7; 656.7

.1 Authorization, approval, etc. of airports and air routes
.2 Air safety

351.814.3	Air navigation services and air traffic control → 629.7
:37	Training of air navigation personnel
(1-4)	National air navigation services (in general)
(100)	International air navigation services
"37"	Operating and service hours or times
.31	Functions of air navigation services : safety, maintenance of orderly flow of traffic, etc.
.32	Airspace division or classification → 341.229; 347.85
.322	Vertical division of airspace
.2	Lower airspace
.3	Middle airspace
.4	Upper airspace
.323	Horizontal division of airspace
.2	Airspace directly above or adjacent to, aerodromes or airports, e.g. control zones, aerodrome traffic zones
.3	Airspace in the vicinity of aerodromes or airports, e.g. terminal control areas
.4	Major areas around aerodromes or airports, e.g. control areas
.5	Areas between aerodromes or airports : air lanes, advisory routes, air corridors
.324	By type of air traffic control used
.2	Controlled airspace (extended, advisory, informative control)
.3	Uncontrolled airspace
.325	Restricted areas
.33	Air traffic control (ATC) principles
.332	ATC as a function of airspace structure
.333	ATC as a function of the navigation system
.334	ATC as a function of the technical equipment, i.e. using Radar or automatic systems
.335	Types of separation (vertical, lateral, longitudinal, time, Radar, etc.)
.8	Landing sequence: aerodrome and runway capacity
.339	Air traffic control in emergencies and special cases

351.814.34 Flight procedures as a function of air traffic control system

.342 as a function of the control procedures : for visual flights (VFR), instruments flights (IFR), controlled visual flights (CVFR); rules for collision avoidance and for marginal weather conditions

.343 as a function of the flight phase : pre-flight action, take-off, climb, enroute flight, descent or approach, landing, post-flight action

.344 as a function of the altitude range : minimum flight altitudes

.345 as a function of the altimeter setting : flight level system

.349 for special cases: lower-level, aerobatic and night flight; parachute descent, air displays and manoeuvres

.37 Aeronautical telecommunication service. Messages

.372 Acceptability of messages, priority indicators, etc.

.373 Operating procedures: format, permissible delay, rate, etc.

.3 Languages used, terminology

.4 Abbreviations. Special codes

.5 Addressing, call signs, location indicators

.7 Frequency assignment, suitability and protection ranges

.8 Operating procedures for automatic equipment

.374 Receipt and transmission of messages : mail, telegram, aeronautical telecommunication network, telephone, mechanical means

.375 Configuration and performance of aeronautical telecommunication networks and relay centres : teletype and radio networks

.376 "Notices to airmen" (NOTAM) : classes I, II A and II B; publications in "Aeronautical Information Publication"(AIP)

.377 Evaluation of messages by air navigation services (Aeronautical Information Service, AIS)

.38 Operational requirements of air traffic control for technical equipment

.381 Ground equipment

.382 Airborne equipment

351.816 Mail. Postal service regulations

→ 656.8

351.817 Telecommunications. Telegraph. Telephone. Radio

→ 654

351.82 Economic legislation and control. Agriculture, trade and industry

→ 338.98; 347.7

:664.1 Economic legislation for the sugar industry

(430):677 German legislation in textiles field

.821 Weights and measures: legal units, time, etc.
→ 389; 528

.822 Currency
→ 336.74

.823 Extractive industries

.1 Agriculture, Stockbreeding. Hunting. Fishing
→ 63

.3 Mining industry. Mines. Concessions, etc.

→ 622

.824 Industry. Trade

.1 Industry
→ 338; 62/69

.11 Electricity. Gas and water services

.5 Trade. Marketing policy
→ 38; 658

.825 Credit institutions
→ 336.72/.73; 336.77

351.83 Labour legislation and control

→ 331

:331.81 Work hours legislation

351.84 Social relief, welfare and insurance measures

→ 361/362; 368

351.85	Public enlightenment and culture. Education, science, arts and literature → 354.52
.851	Teaching. Schools and school policy → 37, esp. 37.014
.852	Collections. Museums. Libraries, etc. → 02; 069
.853	Monuments. Beauty spots. Excavations → 712.2; 719; 72
.854	Science, arts and literature
.855	Public festivals, ceremonies, sports and games, social life, customs and traditions → 39; 79
.856	Encouragement and recognition of public spiritedness and service, courage, devotion and humanity
.2	Incentives, honours, orders, decorations and awards
.857	Worship. Religion. Sunday observance, etc.
.858	Development of social sense, national and international spirit → 327.3
351.86	National defense (administration and legislation) → 354.61; 355
351.87	Administration of justice → 34; 354.51
351.88	Foreign affairs. External relations → 327; 354.11/.12
.881	Colonial legislation → 325
351.9	Supervision and control of the administration
.91	Supervision by the administration itself
.94	Supervision by tribunals
.941	by civil tribunals
.942	by repressive (penal) tribunals
.95	Administrative jurisdiction → 342.525
.96	Supervision by parliament and political parties

352 Local government (in general). Municipal, borough or burgh, urban and rural district administration and authorities
Use .07/.08 from 35.07/.08, (1/9) place auxiliaries, and :351...etc. as required, e.g. 352:351.778.5 Local housing authorities
(1-2) Types of municipalities, urban and rural districts, parishes
(4/9) Local government in particular countries or territories
.07 Local authorities: status, formation, functions, etc.
.075 Local organs, office-holders, departments, etc.
  .1 Councils: municipal, borough, urban and rural district
  .2 Executive bodies of local administration. Magistracy
  .26 Members of the executive body. Aldermen, councillors
  .3 Office-holders, permanent or elected officials
  .31 Mayor, provost or burgomaster
  .33 Town, district or parish clerk
  .5 Departments or divisions, e.g. Borough engineer
  .9 Local autonomous organs
  .91 Water boards. Drainage and poldering boards, etc.

353 Regional, provincial and county administration
Use (4/9), .07/.08 and :351... as under 352

.07 Regional and country authorities, councils, office-holders
.075.31 Governor, Lord Lieutenant, Sheriff, etc.
.1 Administrative regions, e.g.
  (430) in Germany: Länder
  (549) in Pakistan: provinces (East, West)
.2 Counties, departments and equivalent level, e.g.
  (430) in Germany: Regierungsbezirke, Oberamtsbezirke
  (44) in France: départements, préfectures
.5 Divisions of counties or departments, e.g.
  (44) in France: arrondissements, sous-préfectures
.7 Cantons
.8 Special kinds of administrative areas. Colonies. Dominions. Mandated and trust territories. Occupied zones
.9 Autonomous, independent administration of national divisions. Ministries of regions, provinces, etc.
≙ 354

354	**Central government. National or State administration.** **Government offices and departments. Ministries** Use .07/.08 from 35.07/.08, (1/9)-intercalated if preferred, and :351...etc. as supplement or alternative to the direct 354.11/.86 divisions
.07	National or State councils, office-holders, etc.
[illegible]	[illegible]
.072	Relations with other authorities: co-operation, supervision, etc.
:352	Relations with local government authorities, e.g. for housing
.075	Councils, Officers of State
.1	General affairs of State. Ministries of General Affairs
354.11/.86	Specific ministries, government offices, departments,
.11	Foreign affairs. Foreign Office
.12	Colonies. Colonial Office
.13	Commonwealth relations (Office)
.21	Finance Ministry
.22	Treasury. Exchequer
.23	Budget
.31	Interior. Internal or home affairs. Home Office
.32	Education and science, incl. scientific and technical information. In UK: Department of Education and Science with Office of Scientific and Technical Information (OSTI) → 354.36
.34	Fine arts (Ministry, office or commission
.36	Propaganda and publicity → 354.32 (410) in U.K.: Central Office of Information
.4	Transport, communications, etc.
.41	Transport: railways, etc. → 351.81
.42	Post (Office)
.45	Public works
.46	Reconstruction (and planning)
.51	Justice
.52	Religious or Church affairs

354.53	Health
.54	Population problems
.6/.7	War, defence, armed forces or services, etc. → 355/359
.61	War and national defence. In U.K.: War Office : Army Council
.65	Supplies (munitions, etc.)
.68	Liberated zones or territories
.71	Navy. Admiralty. Board of Admiralty
.73	Air Ministry. Air Council
.81	Economic affairs
.82	Trade and commerce. Board of Trade
.83	Agriculture (and fisheries) In U.K.: Ministry of Agriculture, Fisheries and Food
.84	Labour. Ministry of Labour
.85	Social security, insurance (and pensions) In U.K.: Ministry of Pensions and National Insurance
.86	Food → 354.83
355/359	MILITARY ART AND SCIENCE. NATIONAL DEFENCE AND THE ARMED FORCES → 351.86; 354.61/.73; 623
-5/-9	≙ 355/359 Special auxiliaries (alternative to colon combination) thus 355.141 Uniforms, 356.114 Alpine or mountain troops; hence 355.141 - 611.4 Uniforms for alpine troops, or 356.114 - 514.1
355	MILITARY ART AND SCIENCE. WAR. NATIONAL DEFENCE → 351.86; 354.61/.73; 356/359; 623
(091)	History of the art of war
(094)	Laws, decrees, regulations, etc. → 355.077.6
355.01	War: sociological and moral aspects, philosophy, causes
.011	Justification, legitimacy, duration of war
.012	Criminality of war
.013	Causes of war
.014	Influence of social circumstances on preparation and conduct of war. Moral and material factors

355.015	Militarism, militarist mentality or outlook
.016	Antimilitarism → 172.4; 343.345.5
.018	Aftermath: moral, physical, financial, economic consequences and costs. Balance, gains and losses of victory. Military glory
.019	Abolition of war → 341.67
.02	National defence policy. Military policy
.07	Administrative authorities, organs, councils, decisions, etc. ≙ 35.07, e.g.
.077.6	Decisions, decrees, regulations and their promulgation → 355(094)
.08	Personnel details ≙ 35.08
355.1	Military or service life. Tradition. Discipline. Morale, etc.
.11	Military and naval life and tradition through the years. Service personnel (soldiers, sailors, airmen in general)
.12	Service life and routine in peace and war
.121	Peacetime life and routine in the services. Regulars
.122	Military mobilisation → 355.27
.123	Army life, tradition and routine
.124	Naval life, tradition and routine
.125	Service life in the colonies
.126	Airforce life and routine
.13	Military honour. Discipline. Esprit de corps. Morale. Decorations, etc.
.131	Military honour, violation and defence: Councils, tribunals, courts of honour; courts of inquiry → 177; 179.6; 343.63
.132	Duels → 179.7; 343.613; 394.8
.133	Discipline. Order. Obedience (to orders): violations, offences
.134	Decorations. Medals. Awards
.14	Uniforms. Insignias, badges, flashes → 355.66
.141	Uniforms
.145	Insignias, badges of rank or function: pips, stripes, etc.
.146	Regiment or unit insignias or colour, badges or flashes

355.15 Standards or colours of regiments, etc.
→ 929.9
.16 Military or naval ceremonies, parades, official visits, etc.
.17 Military ceremonial

355.2 Drafting, requisitioning, mobilization of war potential

355.21 Recruitment. Call-up for service. Drafts, effectives.
General obligations of citizens for national defence
→ 355.27; 356.34
.211 Call-up or draft systems (conscription, compulsory service, etc.)
.2 Universal conscription, compulsory service
.3 Militia or territorial system
.212 Enlistment procedure. Exemption. Registration
.1 Enlistment. Enrollment
.2 Examination, re-examination
.3 Deferment, postponement of call-up
.4 Exemption from service, Rejection
.5 Replacement drafts
→ 355.218
.7 Civilian service
.213 One-year conditional engagement
.215 Military tax
.216 Voluntary service. Volunteers. Mercenaries
.217 Re-enlistment, re-engagement
.218 Various reserve call-ups or drafts
.219 Special procedures for maritime, seafaring populations.
Merchant navy call-up
355.22 Requisitions. Billets, animals, vehicles
.221 Quarters. Billets.
.222 Animals
→ 636
.223 Vehicles
→ 629
.224 Fodder, forage (for animals)
.2 Food, victuals (for humans)
.226 Other movables, furniture, equipment, etc.
.227 Fixed property. Buildings, premises, land, etc.

355.23	Selection and training of officers. Officer training establishments, military schools, colleges, courses, etc. → 355.5
.231	Military or naval schools or colleges for training officers
.1	Cadet training schools or colleges
.2	Non—commissioned officer (NCO) schools. Brigade or division schools
.3	Officer (commissioned officer) schools
.4	Naval training establishments or schools
.232	Advanced training establishments, e.g. weapon or other specialised training. Military academies or colleges
.233	General military and naval education. Training of professional soldiers
.1	Training. Programme, examinations
.11	Military training of youths and civilians. Pre-military training
.2	General education of various kinds
.21	Technical education
.22	Physical education. Gymnastics. Sport : swimming, fencing, etc. → 796/799
.23	Moral and religious education. Leisure recreation
.234	Training out-of-school,within the unit or garrison. Scientific instruction of NCOs. Language courses
.235	Military and naval school organisation ≙ 371 or :371
.236	Recruitment of instructors nad teaching staff → 355.361
.237	Training, advanced instruction and retraining of cadres → 355.55
355.24	Conscription, requisitioning or other national resources. Preparation for general mobilisation → 342.32; 342.76; 355.27
.241	Economic conscription: agriculture, industry, man-power, etc. → 355.278
.242	Material and supplies
.243	Requisitioning of transport

355.244 Measures regarding the civilian population

.1 Maintenance of morale. Censorship of press and correspondence. Propaganda
→ 070.14; 355.4

.2 Protection of civilians
→ 355.58

.245 Civilian labour: direction, etc.
→ 355.277

.247 Accommodation. Evacuation of ministries, officials, etc.

355.25 Active service. Colour service. Instruction

.251 Duration, length of time of service

.252 Types of service. Personal choice

.253 Calls to the colours, training, extension of service

.254 Classes of militia

.255 Promotion (seniority, selection)

.257 Interruption or suspension of activity

.7 War captivity, prisoners of war. Internment
→ 341.34; 355.415.8

355.27 General mobilization for war. Military and industrial mobilization
→ 355.122; 355.21

.271 Declaration, proclamation of war danger
→ 341.31

.272 Mobilization, alerting of first-line troops

.273 Mobilization, alerting of reserves and territorial army

.274 Conscription of youths below service age

.275 General conscription. Home guard or local militia
→ 355.211

.277 Civilian mobilization and conscription at the frontier
→ 355.245

.278 Total economic, industrial and civilian manpower mobilization
→ 355.241

.291 Demobilization. Disbandment. Wastages, casualties

.1 Demobilization. Disbandment of units. Retirements

.2 Resignations

.4 Discharges (disciplinary, etc.)
→ 343.343.5

.5 Desertion

.6 Death

355.292	Ex-servicemen or veterans. War-disabled. War victims and bereaved → 362.58; 362.655
.2	Ex-servicemen or veterans
.3	Front-line or combat veterans
.4	War-disabled, war-injured, war-wounded
.5	Ex-resistance, ex-underground fighters. Ex-maquisards, etc.
.6	War-orphans
.7	War widows
.91	Civilian war victims
.293	War dead and missing
355.3	General organisation of the forces. Service formations, units
355.31	Army formations and units → 356/358
.311	Units above regimental level
.1	Armies. The Army as a whole
.2	Army groups
.4	Corps. Army corps
.5	Divisions
.6	Brigades
.7	Supreme or High command → 355.331
.8	Regional,local, fortress or garrison commands
(1-2)	Local (garrison) commands
.93	Light formations. Flying columns
.97	Ad-hoc formations, e.g. for parades or inspections
.312	Regiments. Legions (Rome). Phalanxes (Greece)
.313	Battalions
.314	Companies. Squadrons. Batteries
.315	Platoons, half-platoons. Troops
.316	Smaller units or detachments: combat groups, reconnaissance parties. Sections. Tank- and gun-crews
.317	Special units: HQ staff groups. Military bands, buglers, etc.

355.318	Special corps or regiments
.1	Guards. Household troops, life-guards and other elite corps
.2	Foreign-service corps, Foreign legions, e.g.
(44)	Foreign Legion (French)
355.32	Naval formations and units → 359
.321	Navies. The Navy as a whole
.322	Fleets of the navy
.324	Squadrons, battle-squadrons
.325	Flotillas (small ships, destroyers, etc.)
.326	Warships, individual warships and naval craft
355.33	Ranks in the army, navy and air force
.331	Supreme Commander. Commander-in-chief. Chief of Staff. First Sea Lord, etc., Vice-chief, deputy chief of staff. Second, Third Sea Lords, etc. Adjutant-General. Quartermaster-General. Master-General of the Ordnance,etc.
.332	Officers (in general)
.1	School- or academy-trained
.2	Risen from the ranks
.4	Officers of the Reserve
.333	General officers. General staff. Admirals. Air Marshals
.1	Head of State as Supreme Commander
.3	Marshals. Field Marshals. Admiral of the Fleet. Marshal of the Royal Air Force
.4	General, full general. Admiral. Air Chief Marshal
.5	Lieutenant-General. Vice-Admiral. Air Marshal
.6	Major-General. Rear-Admiral. Air Vice-Marshal Brigadier(-general). Commodore. Air-Commodore
.334	Field-officers(Army).Naval and Air Force equivalents
.1	Colonel, full colonel(Army). Captain(Navy). Group-Captain(Air Force)
.2	Lieutenant-Colonel. Commander. Wing-Commander
.3	Major. Lieutenant-Commander. Squadron-Leader
.335	Officers below(Army)field-officer rank, Navy and Air Force equivalents
.1	Captain(Army). Lieutenant(Navy). Flight-Lieutenant
.2	(1st)Lieutenant or subaltern.Sublieutenant.Flying Officer
.3	(2nd)Lieutenant or subaltern.Misdshipman.Pilot Officer

355.336 Warrant officers(W.O.). Non-Commissioned Officers(NCOs). Petty officers(P.O)

.1 W.O.(I)Regimental Sergeant-major.Chief Petty Officer.

.2 W.O.(II)Sergeant-majors. Quartermasters

.3 Sergeants. Petty officers, boatswain, etc.

.4 Corporals and lance-corporals. Able Seamen (A.B.)

.337 Rank and file. Other rank soldiers (Army) : private, trooper, gunner, signalman, sapper, etc. Seamen, ordinary seamen (Navy). Airmen

.1 Called-up, conscripts, etc.

.2 Professional (rank and file) soldiers, sailors and airmen

.338 Civilian personnel of the armed forces or services

.1 Officials

.3 Clerical employees

.4 Manual workers, labourers

355.34 Specialists and tradesmen (irrespective of ranks, q.v.355.33) → 356/359

.341 Officer specialists. Adjutant. Bandmaster, etc.

.342 Warrant and non-commissioned officer specialists, etc.

.343 Specialists of various types and grades

.1 Signals and information personnel →355.40

.18 Interpreters

.2 Drivers

.3 Physical training (PT) instructors

.4 Clerks, accountants, bookkeepers

.6 Artificers, cobblers, barbers, tailors and other tradesmen

.7 Cooks, batmen and other employments

.8 Musicians. Bandsmen, buglers, etc.

355.35 Main branches of the forces → 356/359

.351 Territorial army and land forces (active, reserve, etc.)

.1 First- or front-kine troops

.2 Reserves, second-line troops

.3 Home guard

.5 Base depots: supplies, food provisions, clothing, etc.

355.352	Colonial forces
.353	Naval forces → 355.46
.1	War fleets. High seas fleets
.3	Auxiliary fleets
.4	Marines (soldiers on board)
.5	Coast defence force → 355.458
.354	Air forces → 358.4
.355	Occupation forces. Army of occupation
.356	United forces of coalitions and interallied forces
.357	International and supranational forces. U.N. forces
.358	Secret armies and armaments
355.4	Operations of war. Tactics. Strategy. Action. Campaigns
355.40	Intelligence and espionage. Secret service → 327.84; 344.13; 356.25
.401	Organization of secret service and intelligence work
.404	Sources of intelligenc or information. Military, naval and air attachés
.4	Aerial photography, etc.
.5	Espionage and counter-espionage. Spies
.405	Transmission and security of intelligence
.1	Security. Secrecy
.2	Codes, coding and decoding
.7	Military control and censorship → 070.14; 355.244.1
355.41	Logistics and field service
.411	Movements: marching, night marches, forced marches
.412	Stationing: troop behaviour at rest
.413	Reconnaissance and security duties on the move or at rest
.415	Field services: supplies, quarters, etc.
.1	Lines of communication and supply
.2	Supplies and transport
.3	Depots. Magazines. Military stores

355.415.4	Quarters or billets. Hutments. Camps
.5	Ordnance depots. Ammunition dumps
.6	Health, medical and veterinary services. Evacuation of casualties → 355.424.8
.7	Field post and communications service. Mail
.8	Prisoners of war service
355.42	Tactics
.421	Combined operation tactics. Liaison between command HQ and troops → 355.46
.422	Engagements or actions. Combat or battle tactics → 355.432; 355.44
-611	Infantry engagements
-811	Artillery and tank engagements
.1	Offensive engagements. Assaults. Attacks. Storming, etc.
.2	Defensive engagements or actions
.3	Rearguard engagements or actions
.4	Flank engagements
.5	Retreat engagements: delaying actions
.6	Destruction, demolitions - especially in retreat
.423	Forest, street, river and mountain warfare
.424	Use of specific agents or expedients on the battlefield
:623.454.7	Flamethrowers
:628.936	Artificial moon (for lighting the battlefield)
.1	Trenches and dugouts → 623.12
.2	Transport communications. Bridges, boats,pontoons, etc. → 623.6
.3	Signal communications
.4	Aircraft, balloons, etc. Anti-aircraft defences: barrages, flak → 623.7
.5	Vehicles: cycles, motorcycles, cars, armoured vehicles. Anti-tank defences → 623.43
.6	Animals: dispatch dogs, carrier pigeons, etc.
.7	Ammunition replacements
.8	Ambulances and field hospitals → 355.415.6

355.425	Irregular tactics and warfare. Partisans and resistance movement
.2	Fifth column tactics
.4	Guerilla, partisan tactics and warfare
.6	Sabotage
.426	Civil war. Street-fighting, barricades, etc. Duties in aid of civil power → 323.26/.27
.427	Colonial(warfare) tactics
355.43	Strategy. Plan of campaign → 355.451
:623.454.8	Atomic or nuclear strategy
.431	Concentration. Deployment
.432	Strategic operations → 355.422; 355.44
.1	Offensive strategy
.2	Defensive strategy
.3	Diversions
.433	Plan of campaign: study of terrain, morale, timing, etc.
355.44	Siege warfare → 623.1/.3
.441	Offensive: besieging, investing, blocading, bombarding, assault
.442	Defensive: defence works, fortifications, obstacles, flooding
.443	Mine warfare → 623.36
.445	Surrender. Capitulation
355.45	Defence (of State territory)
.451	Strategic lines of communication
.452	Entrenchments. Defensive positions, fortified zones or lines
.453	Fortress outposts, strongholds
.454	Garrisons
.455	Military division of territory: distribution, quartering, disposition of troops
.456	Covering troops
.457	Defence of particular areas, land, frontiers, industrial zones
.458	Coast (sea-frontier) defence → 355.353.5

355.46	Naval operations. Air operations → 355.421
.461	Naval operations and tactics, offensive and defensive
.462	Naval strategy
.463	Offensive coast operations
.464	Mobile defence at sea
.465	Underwater, submarine defences: sea-mines, torpedoes
.469	Air warfare and anti-aircraft operations
.1	Air combat, fighter, reconnaissance and propaganda flights
.2	Bombing and gas- attack
.3	Air borne troop landings, air blocades
.4	Air support, mobile air defence
.5/.6	Antiaircraft defence on land
.5	Stationary anti-aircraft defence
.6	Mobile anti-aircraft defence
355.47	Military geography → 623.71; 91 Use (1/9) auxiliaries, e.g. (45) Military geography of Italy
355.48	Military history, including combined operations. Wars. Campaigns. Battles. Military exploits. (Wars as part of history in general → 93/99) Use (4/9) auxiliaries, e.g. (44) French military history
.483	Arrangement according to theatre of operation (as distinct from the belligerent countries), e.g. (591)"194" Burma campaign of World War II
.486	Corps and regimental histories
.488	Possible future campaigns
.489	Histories of air operations
355.49	Naval history. Sea battles, naval campaigns, exploits, e.g. (46)"1805" Trafalgar
355.5	Training of the armed forces. Service training, exercises, etc.
.51	Service training in general: regulations, manuals
.511	Home routine service and training
.1	Training regulations and instruction manuals
.2	General order and discipline in quarters

355.511.3/.4	Daily routine: réveillé, roll-call, maintenance and orderly duties, inspections, etc.
.5	Medical, postal, fire and other general duties
.6	Police, guards, sentries and pickets → 356.35; 359.7
.7	Police, guard and security measures
.512	Station, garrison or camp service and training
.513	Mobilization → 355.27; 355.522
.514	Field service
.515	Demobilization → 355.291
.518	Disbandment of units
355.52	Service manoeuvres, exercises and training camps
.521	Troop movement, concentration and deployment
.522	Mobilization exercises → 355.513
.523	Large-scale exercises or manoeuvres
.524	Combined exercises or manoeuvres
.525	Training camps
.526	Fortress exercises or manoeuvres
.528	Naval or fleet exercises
355.53	Field service and tactical exercises
.531	Formations: march, combat, bivouac
.532	Boarding ship, mounting, etc.
.533	Marches
.534	Resting, waiting
.535	Security and intelligence work
.536	Battle-practice or training → 355.541.2
355.54	Basic training of units, recruits, etc. Drill
.541	Training, exercises and drill on foot
.1	Firing practice: rifle and machine-gun practice
.2	Tactical exercises. Combat or battle-drill → 355
.3	Arms-drill
.4	Foot-drill, etc. (without arms)

355.542	Mounted drill: cavalry, motorised, armoured
.4	Vehicle, truck and tank drill
.5	Aircraft or balloon drill
.543	Artillery, gunnery. Drill and practice
.2	Firing ranges. Gunnery practice: aiming, firing
.544	Engineers, sappers, field and trench works → 623.6
355.55	Specialist cadre. Formation and training Use :355/359 or -5/-9 as required,
.551	Cadre exercises. HQ-staff trips, etc.
.559	Model and sand-table exercises
355.58	Civil defence (A.R.P.) organization and training → 355.244.2
.582	Observer corps. Air-watching service
.583	Warnings: sirens, etc. → 654
.585	Passive defence measures: Blackout, dimout, etc. → 623.459.6/.8; 628.978.7; 699.85
.586	Instruction and training of the public
.587	Protective equipment → 614.8
.588	Rescue, first-aid, fire and other services
355.6	Army administsation → 356.3
.61	Administrative activities, finances and contracts
355.64	Service pay. Allowances. Pensions
.641	Soldier's weekly pay or wage: payment, rates, etc.
.643	Salaries
.2	Officer's salary or pay
.6	Warrant- and non-commissioned officer's pay
.8	Salaries and pay of civilian personnel
.644	Supplements. Allowances
.648	Deductions
355.65	Catering.Feeding. Rations. Messing → 355.751
.651	Peacetime rations
.652	War rations
.653	Special rations

355.655	Purchase and receipt of provisions
.656	Storage of provisions
.657	Daily catering, cookhouse or [illegible] field-kitchen arrangements
.658	Mess-rooms, canteens, officers' and sergeants' mess
355.66	Clothing and equipment → 355.14; 355.752
.661	Rights, claims to clothing: regular issues, replacements
.665	Types of clothing → 687
.1	Uniforms, overcoats and other body clothing
.2	Headwear: helmets, caps, berets
.3	Footwear: boots, rubberboots, etc. → 685.3
.4	Washables and linen
.666	Equipment: belts, anklets, haversacks, waterbottles
355.67	Quartering, billeting. Barrack and camp administration → 355.71/.72
.671	Barracks
.672	Furniture. Bedding, etc.
.673	Heating and ventilation. Lighting. Water supply, etc. → 628.9; 696/697
.4	Cleaning of quarters
.674	Camp quarters
.675	Billet equipment of various kinds for service units
355.68	Administration of other requisites and equipment
.683	Army animals: horses, mules, camels, etc. → 636
.684	Instruction and teaching equipment
.687	Medical and sanitary equipment → 355.72
355.69	Transport, movement (supplies, men, etc.)
.01/.09	Organisation, services, vehicle control, etc. ≙ 656.01/.09
.691	Form of transport
.1	Road transport
.2	Rail transport
.3	Water transport
.4	Air transport

355.692	Goods transported
.1	Provisions. Food provisions
.2	Equipments and materials, e.g. for building
.3	Troops and animal transport
.4	Ammunition transport
.695	Fuels and lubricating cil (transport)
355.7	Forces establishments, stations, camps and depots → 623; 725.18
355.71	Quarters, barracks, camps, billets → 355.67
.711	Barracks. Garrison accommodation
.1	Living accommodation in barracks
.2	Community and recreation space. Canteens, messes
.3	Houses for families in garrisons. Married quarters
.4	Temporary accommodation . Transit camps, hostels, etc.
.9	Stables, manèges
.712	Fortress quarters
.714	Schools → 37
.715	Prisons, military prisons, detentions camps, etc.
.716	Camps, military camp establishments
.717	Private, civilian billets (in the locality)
.718	Quarters on board ship. Floating billets
.719	Furniture and fittings
355.72	Medical establishments. Hospitals, etc. → 355.687
.721	Military hospitals and infirmaries
.724	Field hospitals, ambulance depots
.725	Military sanatoria
.727	Medical service arrangements on board → 359.6
355.73	Arsenals. Ordnance factories, workshops → 623.4
.739	Firing ranges. Gunnery practice grounds
355.74	Engineers'workshops, depots and stores → 355.753

355.75	Supply depots. Provisions, forage, clothing and equipment → 355.65/.66
.751	Provision depots for food and forage
.752	Clothing and equipment depots
.753	Maintenance depots → 355.74; 357.56
355.76	Air force establishments, stations, etc. Aerodromes → 358.4; 623.74
35 6	
356/359	THE FORCES. FIGHTING SERVICES. FORMATIONS, PERSONNEL, ETC.
356/358	LAND FORCES → 358.4; 359
356	ARMY. INFANTRY. ADMINISTRATIVE CORPS AND SERVICES
-055.2	Women's army corps, e.g. W.R.A.C.
356.1	Infantry
.11	Regular infantry. Army infantry. Foot-soldiers
.111	Infantry of the line
.113	Light infantry. "Chasseurs" (French)
.114	Alpine, mountain troops → 358.114
.116	Motorized, mounted infantry
.118	Assault or shock troops
.13	Specially mobilised units: firemen, customs men, foresters, railmen, postmen, etc.
.14	Volunteer formations or corps, e.g. (417) Irish Citizen Army; (45) Garibaldi volunteers
.15	Irregular or volunteer formations existing only during war. Guerillas. Partisans, etc. → 355.425
.16	Special formations, regiments, etc.
.161	Fusiliers
.162	Grenadiers
.165	Machine-gun formations
.168	Commandos
.169	Parachute troops. Airborne troops

356.2	General staff (and specialized personnel) → 355.35
.21	General Headquarters (GHQ) staff officers
.22	Attached, assigned or commandeered officers
.23	Records personnel
.25	Special services
.251	Intelligence service → 355.40; 356.362; 358.236
.252	Technical and scientific service → 358.138
356.3	Administrative, medical and auxiliary services
.32	Ordnance corps
.33	Medical, nursing corps → 341.33; 355.72; 362.191; 613.67
.331	Medicos. Doctors. Surgeons
.332	Pharmacists
.333	Veterinaris
.334	Nurses, e.g. (410) First Aid Nursing Yeomanry (FANY)
.34	Recruiting service (call-up, conscripts, volunteers)
.35	Military police and security service. Provosts → 344; 355.511.6/.7
356.36	Auxiliary services: educational, etc.
.361	Educational corps. Instructors → 355.235/.236
.362	Interpreters → 355.343.18; 356.251
.363	Chaplains
356.37	Bases, base and lines of communications services
357	Mounted troops. Cavalry. Transport, etc.
357.1	Cavalry
.2	Remounts: training, breeding, supply → 636; 798
.3	Transport and service corps, e.g. (410) Royal Army Service Corps (RASC)

357.5	Light mechanised troops, motor-cyclists, etc. → 356.116; 358.119
.51	Cyclists
.52	Motor-cyclists, dispatch-riders
.53	Vehicle drivers. Truck-drivers → 355.69 ;623.437
.56	Technical corps (electrical, mechanical)
.57	Fuel supply
358.1	Artillery, armour and special weapons
.11	Artillery and armour units of the army. Guns. Tanks
.111	Field (mobile) artillery
.112	Stationary, fortress or emplacement artillery
.113	Siege and coast artillery
.114	Mountain or alpine artillery → 356.114
.116	Anti-craft and anti-tank artillery
.117	Heavy artillery. Rail mounted artillery
.118	Self-propelled artillery units
.119	Tank and armoured units → 623.438
.13	Technical services
.132	Armourers(arti llery)
.138	Gas and chemical warfare personnel → 356.252
358.2	Engineers, pioneers, signals, etc. → 623.1/.3; 623.6
.231	Pioneers (trench-digging, etc.)
.232	Engineers, sappers, mine-experts → 623.36
.233	Pontoon and bridge engineers
.234	Route, road, rail and canal engineers
.235	Airship servicing personnel → 358.4
.236	Signal corps

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.233	Pontoon and bridge engineers
.234	Route, road, rail and canal engineers
.235	Airship servicing personnel → 358.4
.236	Signal corps

358.3	Specialized technical services (construction, camouflage, etc.)
:528	Land-surveying service → 623.71
: 551.5	Weather service
.31	Construction service for military appliances and ordnances
.33	Military buildings and fortifications services → 355.7
.36	Camouflage service
358.4	AIR FORCE. AIR CORPS → 355.354; 355.76; 359.38; 623.74
-055.2	Women's air force, e.g. W.R.A.F.
.41	Organization of the air force
358.42	Formations, commands
.421	Reconnaissance, observation
.422	Fighter command
.423	Bomber command
.424	Ground or base services
.425	Auxiliary formations or units
.43	Personnel
359	NAVAL SERVICE(S). NAVY, MARINES AND FLEET AIR ARM → 355.231.4; 355.32; 355.46; 623.8/.9
-055.2	Women's naval service, e.g. W.R.N.S.
.1	Crews. Port, dockyard personnel. Reserves
.11	Crews
.12	Port and dockyard personnel
.13	Mechanics
.14	Armourers, gunsmiths, etc. → 359.21
.15	Port and dock workers, labourers
.16	Reserve personnel

359.2	Specialists: gunners, engineers, etc.
.21	Fighting personnel. Naval gunners, torpedo-men, etc. → 359.14
.22	Navigating p-ersonnel, deck-hands, etc.
.221	Helmsmen, steersmen, etc.
.223	Ship's carpenters and labourers
.23	Engineer personnel, engineer artificers, stokers → 359.13; 359.33
359.3	Services associated with the navy or coastal defence
.31	Marines
.32	Coastal artillery
.33	Naval engineering service personnel → 359.13; 359.23
.34	Mixed coast guard service
.35	Lookouts. Signal-men
.38	Naval air service. Fleet air arm
359.4	Technical and repair services. Personnel
.41	Shipwrights
.42	Hydraulic services
.43	Coastal artillery personnel
359.5	Administrative services, quartermasters, etc.
.51	Inspection of administrative services
.52	Administrative personnel
.53	Recruitment personnel
359.6	Medical and nursing services
.61	Ship's doctors. Surgeons
.62	Pharmacists
.63	Nurses
359.7	Naval police. Provosts → 355.511.6/.7
359.8	Other services. Chaplains, etc.

36 SOCIAL RELIEF AND WELFARE. INSURANCE, ETC.

→ 351.84

The .0 auxiliaries of section 06 are applicable throughout 36 (except 368) with the following extensions

36.01	Principles and theories of social welfare
.011.3	Aims, role and tasks
.4	Dangers. Campaign against social distress
.6	Causes of destitution and distress
.05	Social relief, assistance and care
.058	Realization of social relief
.1	Prerequisites, conditions and priorities for assistance
.2	Financial assistance
.4	Assistance in kind
.5	Special reductions and allowances
.7	Forms of assistance
.71	Family relief or assistance
.72	Outrelief
.73	Relief in institutions
.74	Family care
.76	Mutual assistance
.77	Self-help, self-assistance
.78	Sponsorships
.8	Relief operation and measures
.81	Eligibility determination
.82	Rendering of social services
.83	Educational services → 37
.84	Preventive measures
.85	Economic measures. Employment service, provision of work
.86	Advice, enlightenment. Informative measures
.9	Mode of relief or assistance
.95	Individual relief
.97	Group relief

36.07 General organisation of social relief, assistance and care

.071	Initiation. Development. Centralisation. Decentralization. Geographical organisation
.072	Relationship to public authorities. Delegation and supervision of social tasks
.073	Financing of social relief and assistance
.2	Complete coverage by public means. Subsidies
.51	Property. Interest. Endowments. Donations
.53	Administrative expenses
.075	Agencies, organs of social relief
.1	Superior agencies: central welfare office, public assistance authority
.17	Subordinate agencies: local welfare offices, youth welfare offices
.2	Case work and executive welfare offices
.5	Institutions (operation, funds, personnel)
.076	Field of competence and regulations of social services
.51	Right to welfare benefits
.52	Obligation to render assistance
.077	Procedures. Formalities. Benefits ≙ 35.077.1/.7
.8	Benefits
.81	Amount of benefits. Duration of assistance
.82	Sharing and compensation of charges
.83	Compensation, reimbursements by other bodies, firms, third parties

36.08 The social worker

:351.77	Health work generally
:352	Municipal or local responsabilities
.081	Status of the social worker
.41	Instructors, teachers
.42	Nurses and social helpers
.082	Appointment, active period and termination of service ≙ 35.082

361/362	SOCIAL RELIEF AND WELFARE. PUBLIC ASSISTANCE → 258
361	SOCIAL RELIEF. PRINCIPLES, SYSTEMS AND ORGANIZATION GENERALLY
.1	Medical aid, relief and health proctection generally → 362.1; 613/614
.11	Public health education and enlightenment
.13	Birth control → 613.88
.14	Measures to prevent birth of infants with hereditary afflictions
.15	Food and diet instruction or education
.16	Housing relief, improvement of living conditions → 333.32; 351.778.5
.17	Safety instruction or education
.2	Location or area of social relief
.21	Urban relief or assistance
.22	Rural relief or assistance
.3	Recipients of social relief or assistance
.6	Public assistance
.7	Private relief. Philantropy. Charity
.71	Provate contribution by the head of the state
.72	Charity fetes. Charitable performances
.73	Collections
.74	Special funds. Benevolent funds
.75	Helpers, voluntary and paid
.76	Obtaining contributions, gifts, donations, etc.
.8	Organization of social relief
.0...	Details ≙ 06.0... and 36.0...
.81	Charitable societies and institutions
.82	Welfare councils, bureaux, etc.
.84	Extent of assistance. Limitation. Exclusion
.86	Co-operation between different welfare organizations
361.9	Emergency relief or aid in disasters
.91	Earthquake, storm and hurricane
.92	Flood relief
.93	War, civil war → 362.191

361.94	Epidemics → 362.193
.95	Famine (and drought) relief
.96	Fires, conflagrations
.98	Technical (volunteer) relief services
362	SOCIAL WELFARE : SPECIAL SERVICES, INSTITUTIONS, ESTABLISHMENTS, ETC.
(100)	UNRRA, United Nations Relief and Rehabilitation Administration
362.1	Medical welfare. Health services
.11	Hospitals and hospitalization
.111	Public hospitals
.112	Private hospitals
.113	Special hospitals. Military hospitals
.118	Social life in hospitals: visiting hours, parties, celebrations, shows
.12	Clinics and clinic treatment: polyclinics, private clinics, dispensaries, etc.
.13	Sanatoria, preventoria, spa treatment, → 362.16; 362.768
:616-002.5	Tuberculosis sanatoria
.14	Aid to sick: home care, medical supplies, etc.
.141	Medical treatment
.143	Sickness benefits or allowances
.144	Family help
.145	Supply of medicaments, drugs, etc. → 615.2/.4
.146	Supply of equipment, dressings, orthopedic appliances, etc. → 615.46/.47
.147	Supervision and care of sufferers from certain categories of ailments, e.g. tuberculosis
.15	Maternity welfare → 362.71; 368.45; 618.2
.151	Antenatal consultations and care
.152	General and obstetrical treatment, including midwives
.153	Allowances towards confinement
.154	Maternity benefits or allowances
.155	Postnatal care and assistance
.156	Maternity hospitals

362.16	After-care, convalescence → 362.13
.17	Family welfare
.171	Marriage guidance
.172	Health guidance and help for mothers
.174	Assistance for married couples and families → 368.45
.175	Family allowances → 331.226
.176	Assistance for large families
.177	Assistance for unmarried mothers
.178	Family planning
.18	Aid in accident or injury cases
.19	Other medical aid and health work
.191	Aid to wounded in wartime
.1	Red Cross → 341.33
.193	Campaign against social diseases, epidemics, cancer, V.D., etc.
362.2	Care of (certified)insane, lunatics
362.3	Welfare of the mentally handicapped, feeble-minded, imbeciles and psychopaths, including backward and maladjusted children
362.4	Welfare of physically handicapped →376.2/.3
.41	Welfare of blind and visually handicapped
.412	Homes for the blind
.42	Welfare of deaf, deaf-mutes (deaf and dumb)
.421	Homes for deaf-mutes (deaf and dumb)
.43	Aid to speech-defectives (stutterers, stammerers, etc.)
.44	Aid to the partially deaf or hard-of-hearing
.45	Aid to disabled, cripples and limbless → 362.65
.451	Homes for the disabled, cripples, etc.

362.5	Welfare of the destitute, poor and needy → 376.63
.51	Welfare of beggars or mendicants, vagrants and tramps
.52	Lodging and housing: hostels, doss-houses, etc.
.53	Money, seasonal allowances. Winter help
.54	Help in kind
.55	Welfare of destitute families
.56	Labour colonies, work camps
.57	Land settlement: allotments, gardens → 333.328
.58	War victims → 355.292
362.6	Welfare of the old or aged, invalids, infirm or weak →362.1
.61	*Homes for the aged. Old people's homes.* Pensioners' homes
.62	Pensions, allowances. Old age pensions. Widows' and orphans' pensions → 331.17
.65	Welfare of (other) invalids
.654	Welfare of work invalids or injured
.655	Welfare of disabled servicemen and war victims →362.93
.656	Welfare of disabled civil combatants, rescue workers, lifeboatmen, etc.
.67	Funeral expenses allowances →362.96
362.7	Child welfare
(100)	UNICEF (United Nations Children's Fund)
.71	Infant welfare → 362.15
.711	Infant homes. Babies' homes
.712	Crèches
.72	Illegitimate children, waifs. Foundling homes
.73	Orphans
.731	Orphanages
.733	Co-operation in guardianship

362.734	Adoption → 347.633
.74	Neglected children: care and protection → 179.2; 331.3; 343.88; 362.8
.742	Kinds of neglected children
.1	Physically neglected
.2	Mentally neglected
.3	Morally neglected
.745	Child prostitution
.746	Traffic in children → 362.868
.748	Child labour inspection and control
.75	Foster-children, parentless and other socially handicapped children, e.g. of itinerant parents → 376.6
.76	School welfare → 371.217
.761	School meals
.767	School trips, outings, exchange schemes, camps, etc.
.768	Convalescence and school settlements for invalid children (e.g. Pestalozzi)
.77	Welfare of needy minors
.78	Care of sick children: holiday sanatoria, colonies, etc. → 362.768
362.8	Youth welfare Distinguish boys and girls by -055.1 and -055.2, but cf. 362.86
.82	Intellectual guidance of youth
.83	Sport (in youth welfare)
.84	Youth work → 374.3
.841	Youth associations, clubs
.844	Youth hostels
.845	Leisure organization → 379.8
.846	Youth leaders
.847	Training and instruction → 331.86; 374.32

362.85	Youth protection and supervision → 376.5
.86	Girls and young women: general welfare and protection
.863	Station missions, e.g. Travellers' Aid Society
.864	Homes for girls and young women
.865	Employment service for girls or young women
.866	Protection of girls
.867	Training and instruction → 331.86; 374.3
.868	Traffic in girls. White slave traffic → 392.65
.869	Movements for moral betterment
362.9	Social welfare, services, etc. for other categories
.91	Welfare of specific denominational groups Details by : 28/29 → 376.72
.92	Welfare of foreigners, refugees, repatriates, etc. → 376.68
.93	Welfare of the forces, prisoners of war: clubs, canteens,etc. → 362.191; 362.655
.94	Welfare of the middle-classes, new poor, victims of economic crises
.95	Welfare of members of certain occupational groups and families Details by -057 (Aux.I.k)
.96	Provision for funerals. Interment, burial funds
.97	Social work on behalf of the unemployed → 331.6
363/367	MOVEMENTS AND ORGANIZATIONS FOR SOCIAL REFORM. HUMANITARIAN, ESOTERIC AND SECRET SOCIETIES Use the .0 subdivisions of 06, and (4/9) and "..." auxiliaries (Aux.I. e.and g.)
363	Semi-political societies, movements → 329
.2	Movements for political, social or administrative reform, e.g. Ku-Klux-Klan and Black Muslims (in U.S.A.)
.3	Movements for the betterment of society
.5	Movements aimed at action in foreign countries

364 **Movements for the betterment of outcasts and declassés. Moral and social rehabilitation**

365 **Movements on behalf of persons under punishment. Prisoners' aid societies, etc.**

366 **Movements, institutions of an esoteric or semi-esoteric character with humanitarian aims. Secret societies generally**

→ 363

.1 Freemasonry and freemasons

.2 Knights of Pythias

.3 Secret societies of a general ethical character, e.g. Oddfellows

.4 Secret societies of an explicit esoteric or religious character, e.g. Templars, Rosicrucians

.5 Secret societies of a criminal tendency, e.g. Kamorra (Naples), Mafia (Sicily)
→ 343.341

.6 Secret societies of a markedly class character

.7 Secret societies of a semi-political character, e.g. Feme or Vehme (in Westphalia)

367 **Institutions for social intercourse. Clubs, etc.**

Excluding sports, literary and art clubs

.1 Gaming clubs

.2 Clubs. Social clubs

.3 Rotary clubs (Rotarians, Soroptimists)

368 **INSURANCE**

-01 Types of disability, illness, sickness or disease
≙ 313.1-01

-03 Form, course, prognosis of disability, illness, or disease
≙ 616.03

-05 Insurance with respect to the insured person(s)
≙ -05 (Aux.I.k)

-06 State of health before illness, sickness or disease

368.01 Theory, scientific bases of insurance. Actuarial theory

.013 Types of insurance in general. Comparative studies. Indemnity insurance. Insurance of a fixed sum

.015 Work disability, invalidity or incapacity

368.02 General insurance technique, methods, contracts, policies, etc.

.021 Insurance management and business operations generally

.1 Soliciting, acquisition of clients for insurance

.2 Sealing of contract

.21 Proposals. Questionnaires

.22 Insured's obligation to disclose all relevant information

.23 Acceptance letter. Acceptance slip

.24 Preliminary examination at cost of the insurer (company, etc.)

.25 Preliminary evaluation

.26 Determining the sum insured, the insurance amount. Premium, etc.

.28 Cover note. Binder. Interim policy

.022 Insurance contracts: general considerations

.1 Forms

.4 Effective day of contract

.5 Policy period. Time limitation. Renewal

.6 Geographical limitation. Foreign insurance

.8 Policy amendments. Additions

.9 Termination or expiry of contract

.91 Normal expiry, end of journey, death, etc.

.92 Cancellation. Renunciation. Abandonment. Lapsing

.93 Surrender. Conversion. Reassignment

.96 Suspension. Interruption

.97 Abrogation. Annulment

.023 Parties to the insurance contract

.1 Insurer. Underwriter

.2 Policyholder

.3 Insured person(s)

.32 Individual insurance

.33 Group insurance

368.023.4	Beneficiaries
.5	Insurance agents, assignors, brokers
.6	Assignees
.7	Recipient(s) of indemnity
.8	Recipient(s) of allowance
.024	Insurance for own account or for account of third parties
.4	Self-insurance
.025	Details of insurance contracts
.1	Premiums. Rate making. Payments
.11	General premiums
.12	Special kinds of premiums
.13	Computation of premium → 368.027.7
.14	Change of premium during currency of policy
.15	Refund of premium. Indivisibility of premium
.16	Payment of premium: in advance, on date due, late
.17	Period and frequency of premium payment
.18	Execution of payment: place, method of remittance,etc.
.185	Default of payment
.2	Insured object or person exposed to damage, injury or disease
.3	Insured object or part of object exposed to risk of loss
.4	Insured value. Evaluation. Definition of value
.5	Insurance amount
.51	Total value insurance. Partial insurance
.52	Current account insurance
.53	Insurance with variable premiums
.54	Over-insurance. Under-insurance. Correct value insurance
.55	Supplementary insurance
.56	Unlimited liability
.57	Insurance of invariable insurance sum
.6	Risks insured: types and classification
.61	Specified risks, single risks, pure risks
.62	Changes in risks during insurance period
.63	Risks in strikes, unrest, wartime
.65	Uncovered risks
.66	Comprehensive risks. All-risk insurance

368.025.7 Damage, loss or injury incurred

.71 General considerations. Causes

.72 Proof of damage, loss or injury

.73 Prevention of damage, loss or injury. Reduction of risk

.74 Notification of claim. Loss advice. Declaration of damage, loss, injury

.75 Assessment of damage or loss

.76 Extent of damage or injury

.8 Compensation. Indemnification

.82 Calculation or computation

.84 Sum, amount of indemnity or compensation

.85 Adjustment. Settlement of indemnity or compensation

.86 Agreement of the parties on the manner of payment

.87 Payment of claim

.88 Buying out redemption of compensation

.89 Insurer's representation of the rights of the beneficiary with respect to the liable third party

.026 Types of policies

.027 Guarantee, cover. Reserve funds for liability towards policyholders

.2 Share capital, funds in stock

.3 Reserve funds

.4 Security (bonds, certificates, etc.)

.7 Relation between guarantee or cover and premiums

.8 Utilisation of profit

.028 Commission. Brokerage

.029 Re-insurance

368.03 Types of organisation of insurance

.031 Public (state) insurance organisation(s)

.032 Private insurance companies

.1 Stock companies

.2 Mutual societies
→ 334

.3 Mixed companies

.5 Liability

.7 Lloyd's

.034 Mixed-economy. Semi-nationalized insurance enterprises

.036 State supervision: authorization, licences, etc.

368.04 Voluntary and compulsory insurance

.041 Voluntary insurance
.042 Compulsory insurance

368.06 Insurance medicine
  Control, abuse
  Divide by :61

.061 Relations with medical profession. Choice of doctor
.067 Non-medical control. Abuses
.068 Typical usage in connection with insurance medicine
  .2 Compliance of the insured with the insurance terms and their amendments
  .3 Malingering, simulation, feigning sickness
  .4 Pension neurosis (anxiety)
  .5 Exaggerated medical care. Excessive treatment
  .6 Resumption of work on Mondays
  .7 Abuses of the labour market situation

368.07 Administrative bodies
  → 35.07
368.08 Administrative personnel
  → 35.08
.092 Pseudo-insurance
.095 Money advances on policies

368.1 LOSS INSURANCE IN GENERAL. INSURANCE OF THINGS, OBJECTS, GOODS, PROPERTY

368.10 Fire insurance in general
  → 614.84
.12 Various insurances connected with buildings
.14 Fire insurance restricted to specific causes (lightning, explosions, negligence, arson, etc.) or consequences
.15 Insurance of mortgage debt against damage by fire to property mortgaged

368.16 Insurance against damage from weather and natural agents (excluding fire)
→ 368.5

.162 Insurance against rain and bad weather damage generally

.163 Storm insurance

.164 Insurance against roof damage

.165 Hail and frost damage
→ 368.51

.1 Hail insurance

.2 Frost insurance

.166 Water damage insurance

.167 Earthquake insurance

.168 Insurance against damage from biological agents, pests, vermin , etc.

368.18 Insurance against damage caused by personal and impersonal acts. Insurance against damage of specified objects

.182 Theft or burglary insurance

.183 Insurance against theft from the person, pickpocketing, embezzlement, fraud, etc.

.186 Insurance against breakage of objects, materials. Glass insurance

.187 Insurance against breakages and faults in machinery and apparatus, e.g. boiler explosions, nuclear reactor faults

.19 Insurance of other objects , e.g.

:646 Cloakroom or check-room insurance

368.2 TRANSPORT INSURANCE

:656.073 Forwarding insurance (insurance against damage claims by clients of forwarding agencies)

.21 Land transport insurance. Vehicle insurance

:629.113 Automobile or motor vehicle insurance

.22 Inland water transport insurance
Class subjects concerning both inland and maritime insurance under 368.23

.221 Vessel hull insurance

.222 Cargo insurance

.223 Freight insurance

.224 Insurance of costs of wreck removal

368.23 Maritime transport (marine) insurance

.231 Vessel hull insurance

.232 Cargo insurance

.234 Freight insurance

.235 Insurance of a fixed value

.236 Average bond insurance

.24 Air transport insurance

.26 Postal or mail insurance

368.3 CAPITAL INSURANCES. LIFE AND OTHER PERSONAL INSURANCES

368.30 Life insurance in general

.31 Life insurances in respect of the insurance amount

.312 National (life) insurance

.32 Life insurance in respect of the person insured

-053.2 Child insurance

.33 Life insurance in respect of the method of premium payment: single, continuous payments. Profit-sharing, participating insurance

.34 Life insurance in respect of medical examination

.35 Special conditions for life insurance. Deferment of premium payment, etc.

.36 Mortgage redemption insurance and other forms of life insurance

.37 Life insurance with respect to the method of capital redemption

.371 Capital insurance

.1 Insurance with capital redemption at death

.2 Insurance with capital redemption during lifetime of the insured

.211 Dowry insurance. Children's endowment insurance

.212 Educational endowment insurance

.23 Old age insurance

.3 Savings insurance. Sinking fund insurance

.96 Acquisition of real estate by payment of life annuity or other form of life insurance. Homestead insurance

.372 Life annuity insurance. Retirement pension insurance

.373 Funeral expenses insurance

368.38	Health, employment and other private insurance → 368.4
.381	Private insurance against accidents
.382	Private insurance against sickness
.383	Private insurance against disability
.384	Private insurance against unemployment, loss of employment
.385	Marriage, family increase, maternity insurance
.386	Insurance for surgical operations
.387	Celibacy and divorce insurance
.388	Emigrant insurance
368.4	SOCIAL INSURANCE. WORKMEN'S INSURANCE AND COMPENSATION. SOCIAL SECURITY GENERALLY → 351.84; 368.3
368.41	Social accidents
.411	Insured companies
:622	Mining companies
:656	Transport and haulage companies
.412	Insured employees
:622	Miners
.1	Private employees
.2	Employees in civil service. Military insurance
.3	Apprentices and other non-salaried persons
.4	Employer's family members
.5	Home and foreign employees
.6	Excluded persons (in virtue of high posts, short-term employment, etc.)
.7	Home-workers
.8	Self-employed persons. Craftsmen's insurance, etc.
.92	Insurance of itinerant workmen
.413	Risks and insurance coverage
.1	Occupational accidents at place of employment
.2	Accidents during work breaks
.3	Accidents on the way to, and from place of employment
.4	Accidents occuring outside place of employment
.5	Non-occupational accidents occuring at place of employment
.8	Risks not covered or partially covered

368.414 Benefits payable for loss of life. Survivors'insurance

.415 Compensation payable in case of disability

.1 Temporary compensation. Subsistence allowance. Daily benefits

.2 Compensation for temporary disability

.3 Pensions for permanent disability

.4 Lump-sum settlement

.6 Various compensations, e.g. medical aid, medication, nursing expenses, retraining expenses

368.42 Social health insurance. Insurance against occupational diseases
→ 331.82

:616-002.5 Social insurance against tuberculosis

.43 Old age and infirmity insurance
→ 362.6

.431 Old age insurance. Insurance against pre-mature death

.432 Disability insurance

.44 Unemployment insurance
→ 362.97

.45 Marriage, maternity, family increase insurance

.46 Dependents'insurance. Funeral expenses insurance

.48 Retirement pension, half pay

368.5 AGRICULTURAL INSURANCE

.51 Weather risks insurance. Plant diseases insurance

:632.116.3 Hail insurance
→ 368.165.1

.52 Cattle and other livestock insurance
Divide by :636/639, e.g.

:636.7 Dog insurance

:638.1 Bee insurance

.54 Harvest insurance. Crop insurance

.55 Forest and woodland insurance

368.8	INSURANCES AGAINST FINANCIAL, BUSINESS AND OTHER UNCOVERED RISKS
.81	Various financial loss insurances
.811	Credit and debt recovery insurance. Insolvency bond
.3	Securities, mortgage and guarantee insurance
.812	Insurance of loss on redemption at par
.813	Rent insurance. Rental value insurance
.814	Patent insurance
.815	Premium insurance
.86	Legal liability insurance
.87	Business loss insurance. Indirect business damage, interruption, etc. Strike insurance. Unemployment insurance
.891	Legal expense insurance
.892	Tax insurance
.897	Profit insurance. Commission insurance
369	MOVEMENTS AND ORGANIZATIONS FOR PROMOTION OF SOCIAL AND NATIONAL SPIRIT, SOCIAL EDUCATION AND FORMATIVE UPBRINGING → 30; 323; 329; 37.035
369.1	National solidarity and patriotic movements
.11	Patriotic movements (in general)
.18	Ex-servicemen's movements. Veterans' movements → 355.292; 362.655
.2	Racial and national movements (without political aim) → 323.1
369.4	Youth movements. Youth associations → 267.6; 362.8
-055.1	Male: boys (Scouts, etc.),but → 369.43
-055.2	Female: girls (Guides, etc.), but → 369.47
.418	Mixed-sex youth movements
.43	Male youth organizations, disciplined movements
.47	Female youth organizations, disciplined movements

37 EDUCATION. TEACHING. TRAINING. LEISURE

37.0	FUNDAMENTAL TYPES AND PRINCIPLES OF EDUCATION Divisions used both as general main numbers and as .0 auxiliaries applicable throughout 371/379
37.01	Fundamentals of education: theory, policy, aims and basic forms Divide by :0/9
:007	Cybernetic educational theory
:165.74	Pragmatic education
:282	Roman Catholic education
:297	Islamic education
:335	Socialist education
.011	Basic concepts → 001.4
.012	Methods for the study of education
.013	Educational and teaching theory: principles and trends
.014	Educational policy. Educational work and public life
.1	Educational opportunity and obligation → 37.014.53
.14	Compulsory education or schooling
.15	Constitution (organisation), charter, etc.
.2	Significance of school for the education of people
.22	Struggle against illiteracy
.24	Schools and international relations
.241	Official relations
.242	Exchange of teachers and pupils
.25	International educational organisation
.3	Reform of the educational and training system. School reform
.4	Over-expansion of education and other policy errors

37.014.5	General considerations on educational policy. Planning, etc.
.51	Political bias and impartiality
.52	School policy from religious standpoints
.521	Denominational schools (of all religions, sects, etc.) Divide by :28/29
.522	Secular schools (in contrast to denominational)
.529	Anti-clerical, antireligious, atheist influences in the school
.53	Educational policy from social standpoints, e.g. democratization → 37.014.1
.54	Educational (and school) policy from economic standpoints
.542	Educational planning
(100)	International or world planning
(100:5)	International planning for Asia
.1	Planning of capacity and facilities (pupils, classes, schools)
.2	Planning of staff requirements, incl. salaries
.3	Planning of material requirements
.543	Financing and financial development of education
.2	Free education
.3	School funds, financial assistance, grants, subsidies
.544	Rationalization of education: simplification, standardization, mechanization → 65.01
.55	Authority, powers of state departments in respect to schools
.552	Centralization or decentralization of the educational system
.553	Autonomy of schools
.6	Inspection of schools
.64	Parents' advisory bodies. Guradianships or trusts
.65	Councils, commissions for eduaction and training. Schools commissions or councils
.7	Educational work and the public. Involvement of the school in public life, e.g. through performances or publications

37.015 Disciplines of educational theory or pedagogics

.1 Educational climatology: influence of climate and weather

.2 Educational anthropology, biology and genetics

.3 Educational psychology
→ 371.264

.324 Educand or pupil psychology

.325 Educator or teacher psychology

.33 Psychology of educational methods and aids

.4 Educational sociology and sociometry

.6 Economics of the educational system. Efficiency of investment

.017 Aims and ideals of education

.4 Education for citizenship

.7 Education for membership of human society

.91/.93 Special ideals of education

.91 Scientific/technical and rationalist ideals

.92 Human, intellectual ideals

.93 Moral-religious ideals

.018 Basic forms of education

.1 Home and family education. Role of parents, mothercraft, etc. Private tutorship

.2 School education

.26 Attitude, adjustment of parents to the school (parent-teacher discussions)
→ 37.064; 371.268

.264 Parents' meetings, evenings and open days

.265 Parents' organisation(s), associations, school clubs

.3 Education in boarding schools and other institutions

.32 Boarding school or inboarder system, incl. children's villages
→ 371.44

.38 Out-boarder system

.4 Education according to organisational form of instruction
→ 374; 377

.42 Evening study and courses

.43 "Remote control" education. Correspondence courses
→ 371.684/.687

37.018.44	Part-time and day-release study (e.g. 5+1- and 3+3-day)
.46	Refresher and revision courses
.48	Re-education, retraining, re-schooling
.5	Schools and institutions according to organizational form
.51	Schools with little or no division. One-class schools
.52	Permanent schools according to location : urban, rural, open-air
.53	Occasional schools: mobile, holiday, seasonal, summer, etc.
.54	Non-boarding "home" schools. Nursery schools
.55	Schools with connections abroad or overseas. International schools, foreign schools, etc.
.57	Practical training schools
.58	Experimental schools
.7	Education through practical experience of life. Indirect functional education → 371.313
.8	Basic education. Fundamental education
37.02	General problems of didactics. Teaching methods and principles
.022	Principles of particular systems or theories, e.g. 371.481.022 Montessori principles
.025	Methods for development of mental capacity : willpower, attention, memory, judgment, imagination, etc. → 159.9; 37.037
.026	Teaching principles: scholarliness, simplicity, clarity, versatility, self-reliance, stability, creative handling, etc.
37.03	Intelligence training and personality formation
.031	General training. Polytechnical training
.034	Moral education
.035	Social education → 371.4
.1	Education for fairness, justness and integrity
.2	Education for mutual help. School cooperatives, fellowships
.3	Education for work, for the job
.4	Political education (instruction, activity)

37.035.6	National(istic), patriotic education. Education for national community spirit
.7	Militarist education
.8	Pacifist education
.91	Leader selection. Training for leadership and mana gement
.036	Artistic education. Development of creative abilities
.037	Development of mental powers: eurythmics, suggestion, etc.
.5	Self-education and training through mental concentration → 37.041
37.04	Education in relation to the educand or pupil → 371.212
-053	in relation to age
"45.00/.99"	Age groups or years, e.g. 37.04-053"45.06/11" age group 6-11 years
-055	in relation to sex, e.g. 37.04-055.2 Women and girls
.041	Self-education, self-tuition and learning → 37.037.5
.042	Individual factors: aptitude, etc.
.1	Physical aptitude
.2	Mental patitude → 371.212.3
.043	Group factors: separate and combined education, co-education → 371.311
.1	Separated, segregated (races, sexes, etc.)
.2	Combined (races, sexes, etc.). Co-education
.044	Duration of education or training: short, long, optimal, prescribed → 371.23; 371.253
.046	Stages, levels of study
.12	Lower grades, lower school
.14	Middle grades, middle school
.16	Upper grades, upper school, "sixth form"
.047	Differentiation of organization in respect to futur vocation

37.048	Advice and guidance (to educand or pupil)
.2	Teaching (pedagogic) advice
.3	Educational guidance
.4	Vocational guidance and placing → 331.826
37.05	Sponsorship, support of schools and institutions Divide by :0/9, as 37.01
.057	Maintained schools. State schools or institutions
.058	Private and endowed schools or institutions. "Public schools" (in U.K.)
37.06	Social problems. Human contacts and relationships → 379.8
.061	Social circumstances and background
.062	Relations between educational institutions and present members (pupils, students, apprentices or trainees, etc.)
.063	Relations between educational institutions and past members. School and college reminiscences
.064	Personal contacts and relationships between parents, teachers, pupils → 37.018.26; 371.268
.065	Student marriages. Problems of married students
.068	Voluntary activity out ofe school or college (individual or group), e.g. voluntary student labour service → 331.64; 371.38, esp. 371.386
37.07	Management and administration problems of schools and educational institutions → 37.014 ≙ 35.07, e.g.
.072	Relations with o ther bodies. Autonomy. Cooperation,etc.
.075	Organs: boards, councils or senates, offices, committees, etc.
.078	Intervention of public authority: supervision, support,etc.

37.08 Teaching profession: personnel problems
→ 371.1; 378.11/.12
≙ 35.08, e.g.

.082 Admission: qualifications, selection, appointment, promotion, release

.086 Responsibility

.087 Rights, status. Remuneration. Salary. Allowances

.088 Working conditions, organization, etc.
≙ 331.8

371 ORGANIZATION OF THE EDUCATIONAL AND TRAINING SYSTEM.
SCHOOL ORGANIZATION (IN GENERAL)

371.1 Management and direction. Teaching and other staff details

.11 Management and direction of schools and institutions

.111 Management. Governors

.112 Guardians. Trustees

.113 Direction. Headship

.12 Teaching and other staff
→ 37.08; 378.12

.121 Educational advisers or experts

.122 Teachers' conferences

.123 Teaching qualifications, diplomas, etc.

.124 Kinds of teachers and educators (masters, mistresses), e.g.

:51 Mathematics teachers

:91 Geography teachers

.2/.8 Divide where relevant as 378.124.2/.8, e.g.

.7 Assistant teachers

.94 Exchange teachers

.95 Visiting teachers

.96 Private tutors, home tutors

.125 Non-teaching (or normally non-teaching) staff

.7 Consultant specialists, experts

.8 School psychologists, sociologists, etc.

.93 Welfare staff, e.g. for mental health

371.13	Training of teachers and educators
.132	Pedagogic and psychological training
.133	Practical training. Teaching practices (T.P.), model lessons
.134	Specialised training
.135	Personality (or individuality) factor in education
.136	Appraisals, evaluation of teachers and educators (by superiors, parents, pupils)
.14	Further development and training of teachers and educators, e.g. through study groups or tours, conferences, etc.
.15	Status in the teaching profession, in society. (including married women and mothers). Professional pride. Public image → 174; 37.08; 396
.16	Cooperative work and life of teachers and staff
.162	Organized school and educational policy → 37.014
371.2	Organization of instruction, teaching and educational arrangements
371.21	Organization of teaching and instruction with reference to pupils, teachers and schools
.212	The pupil, schoolchild or student → 37.04
.1	Entry. Acceptance. Enrolment
.2	Pupil selection and admission. Qualifying examination. Aptitude tests. Regulations and quota
.3	Ability or aptitude and type of schooling. Streaming, grading, etc.
.5	Kinds of pupils or students
.51	Ordinary full-time pupils or students
.52	Occasional, guest pupils or listeners
.7	Pupil's progress through the school. Promotion. Moving up → 371.26/.279
.71	Double promotion
.72	Lack of progress, retardation, remaining in the same class, non-promotion
.74	Changing schools. Transfer possibilities
.8	Discharge. Leaving. Withdrawal from school

371.213	Division of duties or tasks among the teachers
.1	General form teaching. Subject teaching
.2	Taking the same pupils through several class grades. Changing classes
.3	Special-duty teaching. Tutoring
.5	Substitute or "locum" teaching. Deputizing
.8	Team teaching
.214	Course and study programmes. Curriculum organization. Syllabus. Time-table. Periods, etc. → 372 (Curriculum subjects)
.1	Types of programme or syllabus. Drawing up the programme. School syllabuses. Prospectuses
.112	Subject programmes
.114	Outline or skeleton programme. Guiding principles or rules
.12	Arrangement of subject material: progressive, concentric, symbiotic. Maximum and minimum programmes
.14	School syllabus or programme work
.15	Prospectuses, published programmes
.18	Obligatory, compulsory courses
.19	Voluntary courses
.2	Full, detailed programmes of specific courses
.27	Time-table. Periods
.3	Programme for parallel courses
.4	Optional subject programmes or syllabuses
.41	Compulsory subjects. Optional compulsory subjects. Oprional subjects
.43	Bifurcations, divisions. Organizational differentiation
.5	Programmes for coordinate courses. Synthesized system
.6	Overloading, overburdening of programmes or syllabuses
.215	Administration or management in schools. School and class registers
.5	School registers or rolls. Class record books
.217	Social and financial arrangements for pupils
.1	Transport of pupils: free or reduced-rate transport
.2	School meals: school canteens and kitchens
.3	School holiday centres, camps and colonies
.4	Funds, grants, allowances for pupils
.42	Endowments, foundations. Scholarships. Free places
.46	Incomes. Regular (subsistence)allowances. Worker (earner) students

371.217.5	Loaned study aids and materials → 371.64/.69
.6	Free study aids and materials, books, etc.
.7	Free clothing, uniforms, etc.
.219	Use of schools for non-school purposes, e.g. performances for adults
371.22	School fees or charges
371.23	School year terms and holidays: number, duration, division → 37.044; 371.253
.233	Tours and trips. Outings. Excursions. Study visits and stays (home and abroad) → 371.335
.235	Holidays. Vacations. Temporary closing of schools → 371.336
.239	School celebrations or festivals
371.25	Duration of studies and class arrangement
.252	Class attendance. Overcrowded classes
.253	Duration of schooling or study → 37.044; 37123
.255	Parallel classes. Divided classes. Special classes, e.g. for cleverer children
.256	Free class work (Dalton Plan)
371.26	Appraisal and supervision of pupils' progress → 371.212.7
.261	Marks. Position. Points. Credits. Class or form order
.262	School reports, progress books, leaving certificates → 371.267/.268
.263	School performance tests. Combined appraisal methods → 371.27
.264	Methods for psychological understanding and appraisal of pupils → 37.015.3
.266	Observation methods for character appraisal
.267	School records or dossiers of pupils: characteristics, etc. → 371.262
.268	Conversation and correspondence between teachers and parents. Testimonials. Attendance certificates → 37.068
371.27	Examinations. Qualification system. Competition(s) → 371.212.7; 371.384
.274	Oral examinations or tests
.275	Written examinations or papers
.276	Practical examinations, "practicals"
.277	Examinations under special conditions (external, emergency, etc.) Re-examination

371.279	Examinees, examiners and other examination problems
.1	Examinees. Dread of examinations, nervousness, exam fever
.17	Failing examinations → 371.212.72
.2	Examiners. Examining board. Invigilators
.5	Examination conditions, stipulations or requirements
.6	Examination questions. Problems set. Papers
.7	Marking. Rating
.8	Examination certificates. Diplomas, etc. → 378.2
371.3	Teaching methods and procedures. Forms of instruction and training
	Class comprehensive documents on methods and equipment in this section, e.g. 371.333 Audiovisual methods (and equipment)
371.31	Forms of general instruction, teaching or training
.311	Individual and group instruction
.1	Individual or personal instruction, e.g. by tutors
.4	Group work or study
.5	Class instruction
.313	Instruction through experience or "participation" → 37.018.7; 371.8
.314	Collective or joint instruction. Epoch-centre instruction, etc.
.6	Project method, activity method (beyond normal specialization)
.315	Instruction according to [illegible] treatment of subject matter: direct observation, [illegible] demonstration or display, expounding or explaining, etc.
.6	Formative instruction
.7	Programmed instruction → 371.694
371.32	Lessons, tuition and study in general
.321	Work of the teacher: preparing and giving lessons; subject presentation; setting and correcting work

371.322	Work of the pupil or student
.1	Home-work
.2	Classwork. Supervised study. Training
.4	Talks and lectures by pupils or students (in class) → 371.332
.5	Voluntary work and duties of pupils
.7	Comprehension and retention of matter learnt. Notes and note-taking
.9	Interest in lessons or study. Inattention. Boredom. Tiredness → 371.715
371.33	Oral or verbal instruction. Lectures and courses
.331	Lecturing, lectures and talks
.332	Combined lesson-discussions. Class discussions → 371.322.4
.333	Audiovisual methods → 371.68
.334	Discussion methods. Seminars. Debates. Conversations
.335	Visual, pictorial instruction. Direct observation, outings, etc. → 371.233
.336	Courses. Lecture courses. Holiday courses → 37.018.53; 371.235
371.38	Acquiring education through practical (school) activity : spontaneity, enterprise, initiative, self-reliance → 37.068; 371.313; 379.8
.381	Handicrafts. Workshop and constructive hobbies, etc.
.382	Play, educational games, etc. → 371.695; 372.36
.383	Cultural events, entertainments, displays, performances
.384	Competitions. Contests
.385	Initiative, enterprise in practical (school) activity: investigations, school magazine production, youth (business) undertakings, etc.
.386	Initiative, enterprise in relation to the outside world: correspondence, activities in the service of the community, etc.
.387	Collecting → 379.824
.388	Laboratory and similar practical work
371.39	Other teaching methods and forms of instruction
.398	Supplementary instruction or tuition. Coaching

371.4 Educational systems

A/Z Specific(named) systems - as alternative or supplement to 371.44/.487 - here or at 371.48

.44 Pestalozzi system

.46 Froebel system

.47 Makarenko system

.48 Systems characterised by special methods or procedures

.481 Montessori system

.482 Dalton system

.485 Systems characterised by social methods
Divide as 37.035

.486 Systems characterised by artistic methods
Divide as 37.036

.487 Systems characterised by mental development methods
Divide as 37.037

371.5 Order and discipline in schools and colleges

.51 School regulations. Rules of conduct or behaviour. Hierarchy. Rivalry. Pupils' obligations and privileges

.52 Attendance. Punctuality. Regularity. Absenteeism. Truancy

.53 Incentives and reward. Commendation. Prizes. Honours

.54 Punishment. Disciplinary measures, Special jurisdiction in educational establishments

.542 Disciplinary procedure: summons, hearing, penalties

.543 School or college punishment

.2 Reprimands. Reproof. Censure

.3 Impositions. Disciplinary tasks

.4 Keeping in (after school hours). Detention

.6 Threat of expulsion

.8 Expulsion, exclusion or "sending [illegible] down"

.55 Corporal punishment (beating, caning, flogging)

.57 Persons responsible for maintenance of order and discipline. Class captains. Prefects. Proctors,etc.

371.59 Pupil or student co-responsibility, co-operation in running the school

.593 Participation, sharing in class management and supervision

.594 School courts or tribunals (composed of pupils or students)

.595 The class as an organized community. Ray system. School city or town

.596 The school run as a republic or state. Children's republics during the holidays

371.6 School sites, premises, buildings, equipment. Teaching aids and appliances
→ 37.014.5; 727

.61 School sites and property
→ 711.57; 711.6

.612 School and college estates, districts

.613 Campus, college precincts, school "bounds" and grounds generally

.616 School playgrounds. Playing fields, sports grounds
→ 712.256/.257

.617 School gardens
→ 635; 712

.62 School and college buildings and accommodation
→ 727

.621 Assembly and communal space. Studying, working and staff rooms

.2 Great halls, main assembly spaces, aula
→ 371.625.2

.4 Class-rooms, lecture rooms

.5 Special-subject rooms: for teaching physics, chemistry, languages, etc.

.7 Staff common rooms

.622 Museum and library accommodation
→ 371.64/.65

.623 Practical teaching and training facilities

.2 Seminar rooms

.3 Laboratories

.4 Observatories

.5 Clinics

.6 Workshops and handicraft facilities

.8 Drawing and art work facilities, studio space, etc.

371.624 Gymnasiums. Swimming baths
→ 725.85

.625 Recreation, living and other special accommodation

.2 Community recreation halls, common rooms. Club-rooms
→ 371.621.2

.4 Eating, meal facilities. Dining halls. Canteens

.6 Sleeping accommodation. Dormitories, etc.

.626 Sanitary arrangements, latrines, washhouses, bathrooms, WCs, etc.

.63 School furniture and artistic decoration

371.64/69 Educational, teaching aids and appliances

.64 Libraries (as educational and teaching aid)
→ 026/027, esp. 027.8

.65 Museums and collections (as educational and teaching aid)
→ 069

.66 Scientific instruments and apparatus

.67 Traditional instruction material (chiefly printed)

.671 Books and periodicals, school primers, exercise books, readers, texts, etc.
→ 372.4

.672 Illustrations, pictures, charts and reliefs

.673 Cartographic aids. Maps, globes, atlases

.68 Audiovisual aids and appliances
→ 371.333

.683 Sound- and speech-recording aids. Tape recorders, disks, etc.
Details by :681.8

.684 Radio

.686 Film and projection aids
Details by :778...

.687 Television

.69 Real objects or specimens. Models. Machines. Educational toys

.691 Specimens, real objects and materials (as educational aid)
→ 371.335

.693 Models and simulators

.694 Teaching machines
→ 371.315.7; 681.39

.695 Educational toys

371.7 Health and (medical) care of pupils or students

→ 613/614; 796/799

.71	General health (state of health)
.711	Supervision and control. Health certificates, etc.
.712	Medical examination (of individuals)
.713	Abnormal habits, e.g. poor carriage
.715	Overwork. Overstrain. Fatigue, tiredness, exhaustion → 371.322.9
.72	Physical (bodily) health, hygiene and care, e.g.
: 613.4	Personal cleanliness, baths, etc.
: 616.314	Dental hygiene and care (in schools)
.78	Mental health, hygiene and care Details by :613.8 and :616.89

371.8 School and student life. Societies. Customs, etc.

→ 371.212

-055.1	Schoolboys. Male students
-055.2	Schoolgirls. Female students
.06	Social problems (Divided as 37.06)
.81	Marks of honour or distinction. Forms of greeting and address
.82	New pupils or students. Life and treatment of newboys, newgirls, freshmen
.83	School and student associations, corps, sociteies, etc. (other than scholarly or academic) Use the .0 subdivisions from 06, and the .08 from 37 or 35
:2	on a religious basis
:32	on a political basis
(4/9)	on a geographical basis
.84	Associations, societies and clubs of a scholarly, academic, scientific or special-subject character
:5	Natural science societies, e.g. chemical, geological, botanical
:82	Literary societies
.86	School and student club rooms and [illegible] premises
.87	Residence in lodgings. Student hostels or halls of residence

371.89	School and student custom and tradition
.893	Celebrations, pageants, jubilees
.894	Pranks, escapades, "rags"
.896	Special dress, uniform, gowns and other academic wear
.897	Insignia, badges, "colours", etc.
.899	Demonstrations, rallies, strikes, etc.
x .9	(Education of special categories, handicapped, etc.) → 376
372	CURRICULUM (STUDIES AND SUBJECTS). RUDIMENTS IN PRESCHOOL AND SCHOOL EDUCATION Special subjects at any level and any type of school → 371.214 (Curriculum organization, syllabus, etc.)
372.3	Pre-school activities → 373.2
.32	Environment and its role in earliest education
.36	Development of the faculties and senses. Movement exercises, play, dexterity, neatness, etc. → 371.38
372.4	Elementary instruction. Rudiments or basic subjects → 373.3/.4
.41	Reading (rudiments, first lessons)
.416	Teaching or learning aids. Readers and reading apparatus
.45	Writing: rudiments, first lessons, exercises
.46	Language, speech and expression: rudiments, exercises
.461	Mother tongue, vernacular (first lessons,exercises,etc.)
.462	Spelling and grammar: rudiments
.464	Composition and style development: rudiments
.47	Arithmetic and number work: rudiments → 372.851
.48	Homeland, local history and topography: first ideas of space and time → 372.89; 372.893
372.8	Further special subjects → 373.5/.6; 374/378.6 Divide by :0/9, or ≐ 0/9, e.g.
.83	Citizenship. Civics
.851	Mathematics → 372.47
.853	Physics
.874	Drawing and design

372.879.6	Physical education
.891	Geography → 372.48
373	GENERAL SCHOOL EDUCATION
373.1	Organization and management (of general school education) ≙ 371
373.2	Forms of pre-school education → 372.3
.21	Organization and management problems ≙ 371, but cf. 373.1
.22	Crèches, day nurseries and similar arrangements
.23	Nursery schools
.24	Kindergartens
.25	Special kindergartens, e.g. for handicapped children → 376
.29	Transitions to primary school level. Kindergarten section leading to primary school level
373.3	Primary (elementary) school education → 372.4
.32	Lower grades or stages
.33	Middle, intermediate grades or stages
.34	Upper, higher grades
373.4	Transitions to secondary school level
.41	Organization and management problems ≙ 371, but cf. 373.1
.43	Transitional classes
.44	Special departments or schools preparing for secondary level, e.g. preparatory schools (Britain)
.45	Schools extending primary level only to fulfil requirements for compulsory schooling
.47	Short-duration schools extending primary level, but permitting only very limited further study → 373.525; 373.572

373.5 Secondary (intermediate) school education
→ 372.8

.51 Organization and management problems
≙ 371, but.cf. 373.1

.52 School education with only limited preparation for higher education, e.g. Modern schools (U.K.)Britain), Realschulen (Germany)
→ 371.574

.54 School education leading to full matriculation, e.g. Grammar schools (Britain), lycées (France), Gymnasien (Germany)

.55 Vertical or horizontal combinations in school education

.552 All-age schools. Standardized (primary-secondary) combinations

.553 Comprehensive schools. Multilateral, horizontal combinations

.57 Various types of schools and courses leading to matriculation

.574 Schools extending a short-duration secondary education or a primary education, and leading in 3-5 years to matriculation
→ 373.47; 373.52

.576 Courses to bring candidates up to matriculation level, e.g. after failure of examination taken

.58 School education, intermediate between secondary schools and universities, e.g. "Junior colleges" (U.S.A.)

373.6 Special training or instruction integrated in a general education, e.g. Technical schools (Britain)

.61 Business, commercial and administrative training
.62 Technical and industrial training
.65 Household economy. Domestic science training
.66 Welfare and social work training
.67 Arts training
.68 Agricultural training

374 OUT-OF-SCHOOL EDUCATION AND TRAINING. FURTHER EDUCATION

374.1 Organization and management problems

≙ 371, using .0... as relevant, e.g.

.041 Self-tuition, -instruction or -training
.112 Teachers, tutors, instructors, etc.
.127 Examinations: fees, conditions, etc.
.13 Forms and methods of instruction
.13124 Group education, study, etc.

374.3	Youth work (training and welfare) → 362.8
.31	Organization and management problems ≙ 371, e.g.
.311.24	Youth leaders and instructors → 362.846
.32	Youth (training) work
.33	Youth care and welfare
x .4/.6	(Correspondence, lecture and continuation courses) → 37.018.4; 371.33; 374.7
374.7	Adult education. Continuation courses
.71	Organization and management problems ≙ 371
.72	People's universities and similar institutions. University extra-mural studies, etc.
.73	Adult education associations, unions, clubs, e.g. Work ers Educational Association (WEA, Britain)
376	TEACHING AND TRAINING OF THE HANDICAPPED AND OTHER EXCEPTIONAL CATEGORIES. SPECIAL SCHOOL EDUCATION → 362; 373.25
376.1	Organisation and management problems ≙ 371, e.g.
.112	Special(school) teachers, instructors, etc.
376.2	Education of the physically handicapped, disabled, invalids → 362.4/.6
.22	Disabled, cripples, limbless, spastics, etc.
.24	Invalids, sick and ailing, hospital patients
376.3	Education of persons with sensory and nervous handicaps → 362.41/.42
.32	Blind
.33	Deaf, deaf-and-dumb (deaf-mutes)
.34	Doubly handicapped

376.35 Persons with sensory impairments, partially handicapped

.352 Partially sighted, vision-or sight -defective

.353 Partially deaf or hard-of-hearing

.36 Speech-defective: stutterers, stammerers

.37 Epileptics

376.4 Education of the mentally handicapped

→ 362.3

.42 Mentally retarded, backward or dull
(educationally subnormal)

.43 Mentally defective: feeble-minded, imbeciles

.45 Psychopaths

376.5 Education of persons with adaptation difficulties.
Maladjusted persons."Difficult" children problem

→ 362.7

.54 Precocious or developmentally maladjusted :
prodigies; geniuses

.56 Environmentally maladjusted: to family
or social background

.562 Spoilt or pampered children, e.g. the "only child"

.564 Neglected children
→ 362.742

.58 Near-ineducable, e.g. (juvenile) delinquents
→ 343.815; 343.88

376.6 Education of persons in special social circumstances,
socially privileged or handicapped

.62 Socially privileged: nobility, members of the ruling class

.63 Socially deprived, unemployed

.64 Parentless. Parent-deprived children

.66 Mobile or itinerant persons (nomads, gypsies,
showmen, seamen) and their children

.68 Foreigners and their children (immigrants, refugees,
prisoners of war)
→ 362.92

376.7	Education of national minorities or special groups
.72	Religious and confessional minorities or groups
.74	Racial and linguistic minorities or groups, e.g.
(73-96)	Negro or coloured minority in the U.S.A.
.76	Illiterates, analphabetics
377	VOCATIONAL, TECHNICAL OR PROFESSIONAL TRAINING AND SCHOOLS, COLLEGES, INSTITUTES, ETC. POLYTECHNICS
.018.42	Evening study and courses
.44	Part-time and day-release study
.031	General and polytechnical training
377.1	Organization and management problems ≙ 371, e.g.
.112	Teachers, instructors, etc.
.12	Organization of instruction: courses, fees, examinations, etc.
.13	Forms and methods of instruction
377.2	Training and instruction not leading to qualified vocations or skilled trades. Non-vocational (evening) institutes, etc.
377.3	Training of vocational workers, tradesmen, business employees. Vocational and commercial institutes, etc.
.35	Apprentice training facilities in schools or colleges. Vocational courses (evening, day-release, sandwich)
:655.1	Apprentice courses, facilities in printing
.36	Vocationalschools, junior colleges, etc.
:33	Commercial schools or junior colleges
377.4	Continuation training and re-training of skilled workers. Trade schools, e.g. for master craftsmen
:62	Technical and engineering trade schools
.44	Work-based continuation training and re-training

377.5	Higher vocational training for technician and supervisory grades which may lead to matriculation level and higher education in the speciality concerned
:33	Higher commercial and business training schools
:36	Training schools for social workers
:62	Engineering schools or colleges (for technicians)
377.6	Professional training starting at matriculation level, but not leading to academic or technologist qualification → 378.6
:02	Schools of librarianship
:07	Schools of journalism
377.8	Teachers training colleges, schools, courses, etc.
378	HIGHER EDUCATION. UNIVERSITIES AND COLLEGES (OF ADVANCED STUDY) → 377.6/.8
.014.15	Academic (university) constitution. Charter
.046	Levels of study
.2	To the first examination, to graduation
.4	Postgraduate study
.09	Separate establishments and departmental divisions → 378.4; 378.6
.094	Separate community establishments, e.g. colleges, campuses, houses
.096	Faculties, departments, schools, institutes
378.1	Organization problems of higher education
.11	Organs and direction of universities and advanced colleges
.112	Governing bodies. Council, Senate

378.113	Direction. Administrative officials
.1	Rector, vice-rector, chancellor, vice-chancellor, bursar, etc.
.2	Faculty chairman or director. Dean. Sub- or vice-dean
.114	Academic or university tribunals, judiciaries, etc.
.115	Discipline and internal administration ≙ 371.5
.12	Teaching and other staff
.124	Teaching staff. Professors. Lecturers, etc.
:571	Professor of archaeology
.2	Professors. Associate professors. Assistant professors. Readers
.3	Honorary or titular professors
.4	Lecturers (salaried), staff lecturers and tutors
.5	Lecturers, unsalaried or paid by individual fees. "Privatdozenten"
.7	Assistants
.8	Foreign professors
.92/.96	Other teaching staff ≙ 371.124.92/.96, e.g.
.92	Consultants, advisory staff
.95	Visiting professors, lecturers, etc.
.125	Non-teaching (or normally non-teaching) staff .7/.93 ≙ 371.125.7/.93, where relevant
.126	Training and development of "new blood", future staff
.14	Organisation and arrangement of study and tuition
.141	Matriculation or enrolment. Orga-nisation of studies .2/.5 ≙ 371.21/.215
.142	Fees or charges → 371.22
.143	Division of universityor academic year. Terms and vacations ≙ 371.23
.145	Planning and duration of studies ≙ 371.25 where relevant
.147	Teaching methods. Forms of instruction. Lectures,etc. ≙ 371.3, e.g.
.227	Lecture notes and note-taking
.34	Seminars

378.16	University or college sites, premises, buildings, equipment : 371.6, e.g.
.161	Sites. University quarter. Campus, college precincts
.162	Buildings and accommodation: library, laboratory
.17	Health and medical care(in universities, adavanced colleges) : 371.7
.18	The student or undergraduate body : 371.8
-055.1	Men, male students
-055.2	Women, female students
.183	Student associations, clubs (non-academic). University unions. Student corps or unions
.187	Residence in lodgings or digs, hostels or halls
.189	Student custom: dress, insignia; demonstrations, strikes
378.2	Qualifications. Degrees. Diplomas. Certificates. Examinations
.21	Right to confer academic degrees. Examining bodies. Recognition of diplomas
.22	Degrees. University, academic degrees. Bachelor. Master
.225	Academically qualified persons: graduates, higher graduates
.24	Academic qualifications dependent on practical achievement. Higher studies. Examinations or theses
.244	Graduation (degrees) and requisite. Academic examinations
.245	Postgraduate qualification, doctorates and requisite dissertations or theses
.25	Honorary degrees and qualifications. Doctor honoris causa
.28	Qualifications conferred by learned societies or professional bodies, e.g. medicine (MRCP,FRCS), architecture (ARIBA), music (LRCM, FRAM)
378.3	Foundations, financial support for academic studies
.31	Academic and independent foundations or endowments for academic teaching
.32	Grants, subsidies, etc. for studies. Free places. Fee reductions, concessions. Competitions
.33	Foundations, endowments for academic research. Fellowships
.34	Scholarships, exhibitions for students. Travel scholarships or grants. State scholarships
.36	Students'financial means: allowances, earnings, etc. → 371.217.4
.365	Earnings from subsidiary activity, e.g. part-time jobs

378.37 Social arrangements by, and for, students. Student assistance.
Student labour and employment. University sanatoria, etc.

378.4 UNIVERSITIES. TRADITIONAL UNIVERSITIES WITH USUAL FACULTIES, DEPARTMENTS OR ASSOCIATED INSTITUTES. Cf. 378.6

Arrange by country, state, etc. using (4/9), then by place and/or name of university (...A/Z), adding .094 and .096 (from 378.09) as required, e.g.

(420 Lond.) University of London
.094 ICST Imperial College of Science and Technology
.096:37 Institute of Education. Cf. 377.8
:615 School of Pharmacy
(44 Paris,Sorbonne) Université de Paris à la Sorbonne
(549 Peshawar) University of Peshawar (W. Pakistan)
(663 Dakar) Université de Dakar (Sénégal)
(746 Yale) Yale University, New Haven (Connecticut, U.S.A.)
.094 Colleges of Yale: Berkeley to Trumbull A/Z
(866 Guayaquil) Universidad de Guayaquil (Ecuador)
(945 Melbourne) University of Melbourne (Victoria, Australia)

378.6 COLLEGES, SCHOOLS, INSTITUTES, ACADEMIES OF HIGHER EDUCATION. TECHNOLOGICAL UNIVERSITIES AND EQUIVALENT INSTITUTES OF HUMANITIES, SOCIAL SCIENCES AND THE ARTS. Cf. 377.6/8

≤ 0/9 to classify establishments of defined scope.

Arrange by country, place and/or name (4/9...A/Z), with added .09...where relevant, as under 378.4, e.g.

(744 Bostn.,MIT) Massachusetts Institute of Technology, Boston (U.S.A.)
.096 Departments: physics, chemistry, languages, engineering &c.
(910 Bandung) Institut Teknologi Bandung (Java, Indonesia)
.61/.62 Philosophical/theological colleges, e.g. Hochschulen (in Germany)
.63 Social sciences, economics, law, administration, etc. Cf. 377.5/8
(430.1 Mannheim) Wirtschaftshochschule Mannheim (Germany)
.635.5 (44 St.Cyr) Ecole militaire St.Cyr, Paris (France)
.65 Science (and technology), pure and applied science, e.g.
(492 Delft) Technische Hogeschool te Delft (Netherlands)
(569.4 Haifa,Technion) Israel Institute of Technology, Haifa
.661 Medical and dental, e.g.
(477 Kharkov) Kharkov State Medical Institute (Ukrainian SSR)
(593 Bangkok) University of Medical Sciences, Bangkok (Thailand)
.662 Engineering: mechanical, electrical, civil, mining, etc.
(81 Minas G.) Escola Nacional de Minas e Metalurgia (Brasil)
.663 Agriculture, forestry and fisheries, e.g.
(438 Warszawa) Szkola Glówna Gospodarstwa Wiejskiego (Poland)
.67 Arts: architecture, fine arts, music, dramatic arts, e.g.
(44 Paris,Louvre) Ecole du Louvre, Paris
(72 Mexico City) Escuela Nacional de Artes Plasticas
.678 (420 Lond.,RCM) Royal College of Music, London
(436 Salzburg) Mozarteum (Akademie f. Musik u. darstellende Kunst)
.679.2 (420 Lond. RADA) Royal College of Dramatic Art, London

= 378.9 (Specialist establishments, colleges, etc.) — 377.6/8; 378.6 =

379.8 LEISURE

→ 331.85

.01 General principles, trends, ideals, policy aspects

.048 Advice, guidance

.057 Public or state sponsorship, promotion

.058 Private and commercial sponsorship, promotion

.09 Background and origin, influence and effects of leisure

379.81 General organisation and provision for leisure.
Accommodation, etc.
≙ 371, e.g.

.815 Discipline

.816 Sites, premises and equipment

379.82 Leisure and recreation at home and indoors generally.
Cultural interests and pursuits, hobbies and amusement

.822 Cultural outings, visits to museums, performances, etc.

:792 Visits to theatres

.823 Passive appreciation, listening to radio or television, reading, etc.

.824 Collecting

:656.838 Stamp collecting

.825 Amateur creative pursuits

:52 Amateur astronomy

:77 Amateur photography

.826 Home handicraft hobbies, do-it-yourself

:621 Amateur electrical and mechanical work

.827 Gardening and keeping pets as hobbies

:635 Gardening

:636 Keeping, breeding pets

.828 Amusement indoors

:794 Board/table games. Chess, billiards, etc.

379.83 Leisure and recreation away from home and outdoors.
Staying in hotels, motels, at holiday homes, country houses

.832 Staying at hotels, motels or botels

.833 Staying at youth hostels

.835 Staying at holiday camps or resorts

.837 Living on camping sites or grounds (under canvas, in caravans)

379.84 Outdoor, open-air recreation
(according to physical environment)

(23) in the mountains
(253) in woodland and forest
(26) by or on the sea
(28) by or on rivers, lakes, etc.
:712.2 in reserves, parks, gardens, playing fields
:79... specific recreations and sports

.843 En route, wayside recreation

.844 Urban recreation outdoors, e.g.
:712.25 in parks and gardens, playing fields

.845 Rural recreation outdoors, in the countryside, e.g.
:712.23 in national parks, reserves

.846 Seaside, waterside and aquatic recreation
(26) Sea(side), beach, sand
(28) River(side), lake
:797 Aquatic sports: boating, sailing, swimming
→ 379.8

.847 Recreation on the ice, in snow and other special environments
:796.9 Winter sports: skating, skiing, etc.

379.85 Leisure travel. Touring and cruising
→ 380.8

:656 Forms of transport
:79... Specific touring or cruising recreations

.852 Cross-country tours (on foot or with animal), rambling, trekking, [illegible]
:796.5 Walking, climbing
:798.2 Pony-trekking and riding

.853 Cycling tours

.854 Motoring, bus and coach tours
:656.132 Bus or coach tours (organised)
:796.7 Motorcycling or motoring (family)

379.855 Railway tours
→ 656.2/.5

.857 Cruisings: marine, ship or boat cruises

:656.61 Sea and ocean cruises (organised)

:797.1 Boating, canoeing, yachting cruises

.858 Air tours or cruises
→ 656.7

38 COMMERCE. TRADE. COMMUNICATIONS

→ 351.79/.81; 351.824.5; 65

380 GENERAL TRADE PROBLEMS

.1 Theory of trade

.10 Kinds of trade or commerce

.101 Exchange or barter, purchase

.102 Speculation
→ 336.764.2

.103 Land and sea trade

.105 Compensatory trade

.11 Trade capacity. Supply and demand

.112 Supply

.113 Demand. Purchasing power

.12 Supplies and markets. Extension of trade

.123 Markets or outlets for trade

.13 Market research and trade prospects

.132 Data collection

.133 Market analysis

.134 Trade prospects

.15 Chambers of commerce, trade and industry

:061.1 Official chambers of commerce

:061.2 Unofficial, free chambers of commerce

.156 Foreign chambers of commerce

380.16 Trade control, registers. State trading
→ 347.714

.161 Trade registers

.3 Obligation to register

.4 Facts required for trade registers

.6 Alterations. Cancellations

380.8 Foreign travel and tourist industry

→ 379.85; 392.7; 394.9

:336.722 Travel savings banks

.81 Organisation of tourist industry

.83 Travel agencies, informations nad services

.832 Travel (tourist) information offices

.833 Travel booking agencies

.834 Guides, travel guides

.835 Interpreters
→ 82.03

.838 Information material : guides, maps, prospectuses, etc.

.84 Formalities: entry, exit, facilities, etc.
→ 351.756; 656.072

.85 Currency and exchange matters

.852 Exchange facilities, offices, bureaux

.858 Tips, gratuities

.86 Stay. Measures to make the stay pleasanter

.862 Visits. Sightseeing arrangements

.864 Entertainments and amusements for foreign visitors

.866 Comfort amenities: benches or seats, look-out points,etc.

.87 Kinds of foreign visitors and tourists

.878 Visitors from particular countries or regions

.879 Visitors at particular times or seasons

.88 Attitude, behaviour towards foreign visitors

381 INLAND (HOME) TRADE
→ 347.7; 658.6/.8

381.1 Places where trade is carried on

→ 347.731

.11 Merchandise exchanges

.12 Industries fairs
→ 061.4

381.13	Retail markets
.14	Local (weekly, annual) markets
.15	Market halls
.17	Auctions
381.2	Commercial agents, etc.
	→ 336.762; 347.732
.24	Brokers
.25	Forwarding agents. Consignees
.26	General representatives. Local agents
.27	Commercial travellers
381.3	Middlemen (wholesale, commission) trade
.31	Wholesale trade
.32	Intermediary wholesale trade
.33	Commission business
381.4	Warehouses. Depots
381.5	Retail trade. Shopkeeping. Dealers
	→ 658.87
.51	Large stores, shops
.511	Departments stores
.512	Mail order business
.513	Chain stores. Multiple shops
.514	One-price stores
.516	Consumer-cooperative stores → 334.5
.52	Small stores or shops
.53	Mobile and street sales
.531	Street sales, hawking, colportage
.537	Kiosk sales
.54	Self-service systems
.542	Automatic machine sales
.544	Self-service (super market) sales
.545	Automatic buffets or food-service systems
.546	Cafeteria systems

381.55 Antique and secondhand trade

.551 Antique dealers
→ 7.075

.553 Second-hand dealers. Used goods marts

.554 Exchange marts
→ 380.101

.555 Waste dealers. Rag-and-bone mechants

.57 Occasional trade. Temporary shops. Jumble sales, etc.

.591 Places where shops are allowed

.592 Time restriction. Hours of business
(opening and closing times)

.595 Restricted clientele or custom

381.6 Elimination of middleman.
Direct sale to consumer
→ 334.5

381.7 Tradingtechnique from the economic point of view
→ 338.5; 381.82

.71 General tradingpractices

.713 Trading custom and practices for particular goods

.717 Terms of delivery

.5 Quality of goods or wares

.6 Quantity of goods or wares

.7 Legal and safety requirements

.718 Dispatch conditions
≙ 658.788, e.g.

.4 Packing conditions

.5 Transport conditions

.72 Barter or exchange

.73 Purchase
≙ 658.7

.74 Sale
→ 658.8
.741/.745 ≙ 658.81/.85, e.g.

.742 Sales promotion
→ 659.1

.747 Clearance sales

.748 Terms of payment

.1 Cash payment

.3 Payment on account

381.8	Promoting national or local trade and other problems
.81	Competition. Combines. Cornering → 338.6/.8; 343.52
.812	Measures against proliferation of competition
.815	Competition on the part of national and public enterprises
.82	Commercial and industrial ownership, frauds and abuses → 343.53; 347.776; 381.7
.822	Certification marking of merchandise (quantity, quality, origin, etc.) → 389.63/.64
.823	Proprietary brands, seals, packings and their legal protection → 347.77; 608
.824	Business and trade secrets
.825	Bankruptcy → 343.535; 347.736
.826	Profiteering → 343.536; 347.456
.828	Malpractices, abuses in auctions and sales
.829.3	Illicit trading. Smuggling, etc.
.83	Dumping. Anti-dumping
.84	Economic and trade espionage → 343.534
.85	Economic boycott → 341.655
.87	Trade nationalism and patriotism
.872	Propaganda for home manufactures. National mark
.874	Compulsory certification of origin of foreign goods. "Made in..."
.876	Measures to promote quality and good name of home products
.877	Local trade patriotism
.893	Information of an economic and commercial character. Commercial propaganda from the economic point of view ≙ 659.23
382	FOREIGN TRADE. INTERNATIONAL AND WORLD TRADE → 337
382.1	Organisation, various systems of foreign trades
.14	Foreign trade policy → 330.172; 330.182
.15	Transport policy
:656.61	Shipping policy

382.16 Balance of trade (active, passive)
.17 Balance of payments

382.2 Official and semi-official trade representation abroad.

→ 380.156

.21 Consuls and consulates. Attachés, etc.
→ 341.8

.217 Trade missions and other (semi) diplomatic trade representations
≙ 341.7

382.3 Bonded warehouses. Free ports, etc.

382.4 Trade agreements. Air navigation agreements
→ 327.7; 337.91; 341.24

382.5 Import

382.6 Export

382.7 Transit. Re-export of imported goods

382.8 Competition, boycott and other foreign trade matters
≙ 381.8, e.g.

.829 Illicit trading. Smuggling
.83 Dumping

383/388 COMMUNICATIONS. TRANSPORT
Only economic aspects here. For technical aspects
→ 654; 656

383 Postal services. Mail
→ 656.8

384 Telecommunications. Telegraph, telephone, radio and television

385 Railways
→ 656.2

386 Canals and inland waterways
→ 656.62

387 Sea transport. Shipping. Ports, docks and harbours
→ 347.79; 656.61

388.1/.4 Land transport
→ 656.1/.5
.1 Roads and bridges. Road transport. Haulage
.4 Tramways and rapid urban transport

388.9 Air transport

389 METROLOGY. WEIGHTS AND MEASURES. STANDARDIZATION
→ 531.7; 681.2

389.1 Weights and measures

.14 Standardizing, stamping, calibrating of weights and measures
.15 Systems
.151 Metric system (metre, kilogram, litre)
.152 Imperial system (yard, pound, gallon)
.16 Units of weight and measure. Standards
.17 Number series, preferred numbers. Format series, etc.
389.2 Universal time. Time signals
(4-15) West European Time
.22 Summer Time

389.6 Standardisation
→ 658.516

.6(100) International (ISO) work
(42) in Britain (B.S.I.)
(43) in Germany (D.N.A.)
(44) in France (AFNOR)
(73) in U.S.A. (USASI)

.63 Quantity, dimensions. sizes
.631 Tolerances, limits and fits (for interchangeability, etc.)
.64 Quality, condition, performance, etc.
→ 381.822

39 ETHNOGRAPHY. SOCIAL ANTHROPOLOGY. FOLKLORE.
MANNERS, CUSTOM AND TRADITION

→ 571/572; 7.03; 9

391/397	ETHNOGRAPHY. MANNERS. CUSTOMS. RITUAL, ETC.
391	Costume or dress. Adornment. Elegance. Fashion → 613.4; 646; 687
:63	Farm and peasant dress
"342.7"	Sunday-best
.1	Man's dress and costume generally
.2	Women's dress and costume generally
.3	Children's dress and costume generally
.5	Hair. Coiffure. Beard, etc.
.6	Personal toilet and body care. Beauty care. Perfumery, etc. → 668.5; 687.5
.7	Ornament, jewellery, etc. → 391.92; 671
.75	Insignia, badges, marks of distinction, e.g.
:796	Sports badges or insignia
.8	Masks
.9	Body markings (as adornment) → 392.27
.91	Tattooing, body paint, etc.
.92	Disfigurements or mutilations, e.g. ear-, nose-, lip- and neck-rings
392	Private and family life customs and rituals
.1	Birth. Puberty. Majority
.12	Birth
.13	Couvade. Man child-bed
.14	Baptism → 265.1
.15	Circumcision
.18	Coming of age. Majority

392.2	Human sacrifices. Killings and mutilation → 291.34; 392.89; 393.9
.24	Ritual killings. Headhuntings
.27	Ritual mutilations → 391.9
.28	Associated superstitions: vampires, werewolves, etc.
392.3	Family systems. Relationship, kinship, agnation → 173; 321.11
.31	Kindred, family and parental relationship.
.35	Artificial relationships, blood-brotherhood
.37	Hierarchy of the family: status of husband, wife and children
392.4	Courtship. Betrothal. Engagement
392.5	Marriage or union: nuptials, forms, etc. → 173; 347.62
.51	Nuptials, wedding ceremonies and celebrations. Honeymoon, etc.
.52	Jus primae noctis (first night rights)
.53	Agamy. Unmarried state. Bachelorhood. Spinsterhood → 392.63
.54	Forms of marriage or (sexual) union
.542	Endogamy and exogamy
.543	Inbreeding, incest → 343.542
.544	Polygamy. Polyandry. Polygyny
.545	Monogamy
.546	Marriage or union by abduction (or rape) → 343.541
.547	Marriage or union by buying the bride
392.6	Sex life and relationships → 176; 393.4/.5; 613.9
.61	Love. The art of love
.62	Concubinage. Morganatic union
.63	Celibacy, ritual celibacy → 392.53
.64	Promiscuity
.65	Prostitution → 362.868

392.7	Friendship, private hospitality (and enmity) → 177; 380.8; 394.9
.77c	Enmity, hostility, quarrels (private family). Feuds. Vendettas → 343.283
392.8	Meals, dinners. Eating, food and drink customs → 394.1; 642
.82	Fasting and fasts → 241.72
.83	Forbidden, proscribed foods
.84	Vegetarianism (ritual) → 613.261
.86	Drink preparation and drinking customs or rituals
.87	Geophagy, eating earth or other indigestible materials
.89	Cannibalism → 392.2
.91	Names. Nicknames → 801.313; 929, esp. 929.2.09
393	Death rites and customs. Funerals, etc. → 614.6; 718
.1	Burial
.2	Cremation. Incineration
.3	Embalmment. Mummification. Death masks
.4	Exhibiting the dead. Dead vigils and wakes
.7	Mourning
.9	Funeral rites: cortèges, dances, banquets, oblations → 392.2
.98	Widowhood customs and rites: suttee (burning)
394	Public and social life. Festivities and ceremonies → 79
.1	Banquets. Dinners. Luncheons → 392.8; 642
.2	Public festivals (and holidays) → 398.33
.25	Carnivals. Masquerades

394.26	Holidays. Special festivals → 331.815/.817.5; 371.235; 398.332
.268	Special days (or periods)
.2	Family days, Mother's day, Father's day, etc.
.3	Days or periods of mourning and remembrance
.3	Games, dances, balls → 793; 796
.4	Official ceremonies. Coronations, state visits, triumphs, commemorations, jubilees, etc.
.5	Processions. Pageants
.6	Fairs. Country fairs. Wakes. Kermis or kermess, etc.
.7	Customs of chivalry, tourneys, jousts, etc.
.8	Duels and ritual suicide → 343.61
.84	Duels and duelling
.86	Ritual suicide, e.g. hara-kiri
.9	Public and(inter)national hospitality or friendship → 380.8; 392.7
.912	Organization of relations between different countries, e.g. (44:492):061.2 Society for promotion of Franco-Netherlands relations
.92	Relations other than personal visits. Exchange of correspondence, pen-friends, etc.
.94	Behaviour towards specific personalities newcomers or visitors, public idols or villains
395	Ceremonial. Etiquette. Formal conduct and address → 177
.3	Social hierarchy, rank and precedence
.5	Greeting. Salutation. Farewell. Deference, etc.
.6	Conversation. Etiquette and form(s) of address
.7	Correspondence etiquette and form(s) of address
.8	Felicitation, condolence. Expressions of sympathy
396	Women and society. Women's status. Feminism → 342.83; 371.15; and -055.2 (Aux.I.k)
.1	Emancipation: women's vote or suffrage, antifeminism → 396.9
.2	Women and the law: nationality and property of wives
.4	Education of women

396.5	Employment of women → 331-055.2
.6	Family status. Woman and the home → 321.11; 392.37
.9	Women and politics → 396.1
397	Primitive and nomadic peoples Gipsies, and other special stocks from the standpoint of custom and tradition → 571; 7.031
398	FOLKLORE . Popular tradition, etc.
.1	Popular or folk tradition: nature, etc.
.2	Folk tales. Fairy tales. Legends → 398.5/.9; 8
.22	Sagas. Historic legends, e.g. Arthurian
.23	Anecdotes. Popular humour. Jokes, etc.
398.3	Popular beliefs, customs and superstitions
.31	Fire and flame: cult, divination, etc.
.32	Haunted places, e.g. churchyards, ruins, springs, woods
.33	Calendar festivals → 264-045; 331.815; 394.2
.332	Main seasons and festivals
.1	Spring
.12	Easter. Easter customs (eggs, hares)
.16	Whitsun
.2	Summer. Midsummer(day) customs
.3	Autumn or fall. Harvest festival. All Saints
.4	Winter
.41	Christmas season; Advent to Twelfth-Day
.42	New Year: Silvester or hogmanay, New Year's Day
.34	Local, household superstitions and customs
.341	The house or home. Housewarming

398.4	The supernatural. Witchcraft → 133; 291.33
.41	Good and evil spirits
.42	Ghosts
.43	Elemental spirits (gnomes, fairies, elves)
.44	Dragons
.46	Giants and dwarfs
.47	Witches
.5	Folk books, plays, etc.
.51	Chap-books, etc.
.54	Folk plays → 792; 8-2
.541	Miracle, nativity, passion plays
.543	Mummery, buffoonery, etc.
.6	Riddles, enigmas, conundrums, mottoes, etc.
.7	Dream books. Popular dream interpretation → 159.963.3; 291.32
.8	Folk songs, ballads, nursery rhymes → 784
.81	National songs. Homeland songs
.82	Nature songs, folk songs of every day life
.83	Nursery rhymes, lullabies, etc.
.84	Social, dance, recreational and sport folk songs
.85	Work songs. Folk songs referring to occupations
.86	Comic, satirical songs or snatches. Lampoons and popular ditties
.87	Folk ballads, narrative or historical
.88	Religious folk songs, spirituals
.9	Proverbs. Sayings. Folk names → 801.311

CLASS 4 HAS BEEN VACANT SINCE 1964

*	4	(PHILOLOGY. LINGUISTICS. LANGUAGES); 1964	— 80	*
*	40/409.5	(Generalities on language & linguistics);	— 800	*
*	407	(Teaching of languages);	— 800 :37	*
*	408	(Kinds of languages and dialects);	— 800.8	*
*	408.9	(Artificial, world auxiliaries, interlanguages);	—800.89	*
*	409/409.5	(Sign, secret and gesture languages);	— 800.9	*
*	41/418.3	(General philology & linguistics); 1964	— 801	*
*	411/413	(Orthography, parts of speech, lexicology);	— 801.1/.3	*
*	414/414.9	(Phonetics, speech, articulation, etc.);	— 801.4	*
*	415/415.64	(Grammar, etymology, syntax, etc.);	— 801.5	*
*	416/416.7	(Prosody, metre, rhythm, rhyme, etc.);	— 801.6	*
*	417/418.3	(Auxiliary sciences, criticism, sources);	— 801.7/.8	*
◆	42/499	(Philology of individual languages); 1964	— 802/809	◆
◆	42/49-0/-8	(Auxiliaries ≅ 40 and 411/418);	— 802/809-0/-8	◆
◆	42/488	(Western languages);	— 802	◆
◆	420	(English language, philology);	— 802.0	◆
◆	43/439.9	(Germanic languages: German, Dutch; Norwegian, Swedish, Danish, etc.);	— 803	◆
◆	44/46	~~(Iberic languages: Spanish, Portuguese);~~ (Romance languages: French, Italian, Romanian; Spanish, Portuguese, etc.)	— 804/806	◆
◆	47/477	(Classical languages: ~~Greek,~~ Latin, Greek);	—807	◆
◆	48/488.3	(Slavonic and Baltic languages: Russian, Polish, Czech, Serbo-Croat, Bulgarian, etc);	—808	◆
◆	49/499	(Oriental, African and other languages);	—809	◆
◆	491 / 491.9)	(Indo-European languages other than Western: Indo-Iranian, Indic, Celtic, Albanian, etc);	—809.1	◆
◆	492/492.8	(Semitic languages: Hebrew, Arabic, etc.);	—809.2	◆
◆	493/493.5	(Hamitic languages: Libyan-Berber; Cushitic, Somali, Galla, etc.);	—809.3	◆
◆	494/499	(Isolating & agglutinating languages);	—809.4/.9	◆
◆	494.1/.5	(Uralo-Altaic, Turanian: Turco-Tartar, Samoyed and Finno-Ugrian languages);	—809.45	◆
◆	494.6/.63	(Caucasian languages: Georgian, etc.) ;	—809.46	◆
◆	494.7/.75	(Hyperborean and Eskimo languages);	—809.47	◆
◆	494.8/.84	(Dravidian: Tamil, Malayalam, Telugu, etc.);	—809.48	◆
◆	495/495.99	(Asiatic and Austro-asiatic languages: Chinese, Tibeto- and Thai-Chinese, Japanese, Korean, Burmese, Protomalaccan);	—809.5	◆
◆	496/496.68	(African languages: Bantu & Sudanic, etc.);	—809.6	◆
◆	497/498	(American Indian languages);	—809.7/.8	◆
◆	499/499.9	(Austronesian & Malayo-Polynesian);	—809.9	◆

UDC MED. ED. CLASS 5
complete. GAL

5 MATHEMATICS. NATURAL SCIENCES

5(091)	History of sciences
5.00	General points of view ≙ .00 (Aux.I.i), e.g.
+ .001	Scientific projects. Scientific research
+ .003	Economic and financial aspects of science
+ ·007	Scientific personnel. Scientists generally. Cf. -05 (Aux. I. k.)
50	GENERAL WORKS ON THE EXACT AND NATURAL SCIENCES
501	General works on the exact sciences Mathematical sciences in the wider sense, including astronomy, mechanics and mathematical physics
502	General works on the natural sciences. Nature study. Natural history → 113/129
(091)	Natural history
502.7	Nature and wild life protection. Wild life management → 719; 911.9
:061.2	Societies for protection of nature
.72	General reserves. Breeding places
.74	Animal life. Game, etc. → 351.765; 59; 636/639
.743	Protection of particular species from threat of extinction → 575.79 and use: 59..., e.g.
:599.722	Protection of rhinoceros
.747	Specific dangers and threats: protective and preventive measures
.75	Plant life. Forests, etc. → 58; 633/635
.757	Specific dangers and threats: protective and preventive measures Cf. 632.9

	502.76	Geological and geographical features → 55
	:551.2	Protection of volcanic and tectonic features
	.77	Prehistoric (anthropological) and ethnological features
	:571	Protection of prehistoric remains → 711.423; 7.031; 72.031
	:572.9	Protection of(primitive) races. Reservations, e.g.
	(73=97)	American Indians in U.S.A.

51 MATHEMATICS

	51.01	Philosophy of mathematics
	511	ARITHMETIC. THEORY OF NUMBERS
	511.1	Numeration. Counting. Arithmetical operations
+	.11	Notation. ~~for different languages~~ Number systems. Cf. 003.62
	.12	The first four rules for integers. Addition. Subtraction. Multiplication. Division
	.13	Factors. Fractions
	.132	Factors. Factorization. Powers of numbers
	.134	Fractions
	.135	Decimals. Operations with decimals
	.136	Fractional parts. Percentages. Simple and compound interest
	.137	Ratios. Proportions
	.138	Continued fractions
	.14	Extraction of roots. Surds. Roots
	.142	Square roots
	.143	Cube roots and higher roots
+	.145	Surds. Rationalization
	.147	Imaginaries. Imaginary numbers
	.15	Use of logarithms Cf. 518.2 (Tables)
	.16	Operations with concrete units (money, dimensional, time, physical, etc.)

511.2 Numbers: generalities, properties, types, etc.

.21 General elementary properties of numbers.
Highest common factor (H.C.F.) and least common multiple (L.CM).
Prime number, etc.
Cf. 511.28

.22 Congruences, indeterminate analysis and diophantine equations of the first degree. Fermat's and Wilson's theorems
Cf. 511.5

.23 Quadratic residues

.24 Complex numbers of the form a + b $\sqrt{-1}$; their congruences and quadratic residues

.25 Quaternions with integral coefficients

.26 Residues of powers and binomial congruences
Cf. 512.391

.27 Division of the circle. Cf. 513.101.5

.28 Theory of prime numbers: Dirichlet's and other theorems

.29 Partitions, additive theory of numbers

.3 Arithmetical or numerical functions other than φ (m) : analytical representations, asymptotic expressions

.4 Forms and systems of forms

.41 Linear forms and systems of linear forms

.42 Binary quadratic forms. Gaussian periods, Pell's equation

.43 Number of classes of binary quadratic forms

.44 Definite quadratic forms

.45 Indefinite quadratic forms

.46 Representation of numbers by quadratic forms

.47 Forms of any degree. Equivalence of two forms, etc.

.48 Systems of forms

.49 Forms from the genus point of view

.5 Indeterminate (diophantine) equations of higher than first degree. Fermat's last theorem. Cf. 511.22

.6 Integral algebraic numbers. Ideal numbers. Abelian number fields

.7 Approximations by rational numbers (Diophantine approximations. Continued fractions)

.8 Transcendental numbers

.9 Farey series, special classes of numbers, etc.

.91 Farey series and analogues

.92 Classes of special numbers (triangular, polygonal, figured and perfect numbers)

512 ALGEBRA

	.1	Elementary algebraic operations and formulae
+	.12	Addition. Subtraction. Multiplication. Division
	.14	Binomial theorem or formula. Pascal's triangle. Radicals
	.2	Equations and functions of the first and second degree
	.3	Theory of (higher degree) equations. Calculation of roots. Transcendental equations
+	.31	Properties of integral polynomials. D'Alembert's theorem
+	.32	Relations between coefficients and roots. Symmetric functions
+	.35	Imaginary roots
+	.37	Limits and calculation of roots. Approximation
+	.391	Particular, binomial and reciprocal equations. Cf. 511.26
+	.393	Cubics and quartics
	.4	Galois' group theory and solution of Abelian, Galois and other higher degree equtions by radicals
	.5	Rational fractions. Algebraic interpolation

512.8 Higher algebra

	.83	Determinants
	.86	Linear substitutions and groups
	.87	Elimination. Elimination of an unknown
	.88	Invariants and covariants (of a form): General theory, symbolic notation, seminvariants, etc.
	.89	Various forms: Binary, harmonic, ternary, quaternary, bilinear, multilinear forms
+	.892	Systems of binary forms
+	.894	Binary forms of degree higher than the second
+	.897	Quadratic and hermitian forms
	.9	General theory of imaginaries and of complex quantities. Vector analysis
	.91	Imaginaries. Calculation. Geometric interpretations
	.92	Equipollences
	.93	Complex quantities from the algebraic point of view
	.94	Quaternions
	.95	Biquaternions

512.96	Nonions
.97	Multenions
.98	Theory of operations → 519.47
.99	Other systems of complex numbers. Application of vector calculus in mechanics and physics → 517.43
513	GEOMETRY
.0	Generalities. Principles of geometry
.011	Axioms
.012	Analytical treatment. Coordinate methods → 516
.013	Infinitesimal methods and properties → 513.73
.014	Finite geometry
.015	Subdivision from standpoint of theory of groups → 513.76
513.1	Plane geometry (planimetry) in general
.10	Points. Straight lines. Angles
.101.5	Angle measurement. Circle division system
.51	360° division of circle. Old degrees
.52	Decimal division (4008). New degrees
.53	Other symmetrical angle divisions
.54	Asymmetrical circle division
.11	Plane triangle, its straight lines and points. Pythagoras's theorem. Area of triangle
.12	Plane triangle, its straight lines, points and circles
.13	Special triangles: isosceles, equilateral, right-angled
.14	Construction of triangles
.15	Systems of triangles. Similar triangles. Homothetic and homologous figures
.17	Anharmonic ratio. Projective transformation. Homography. Harmonic division. Involution
.18	Quadrilateral, rectangle, square
+ .185	Trapezium
+ .186	Parallelogram in general and its varieties
.19	Polygons

+	513.2	Circle geometry
	.21	Circumference of the circle. Poles and polars. Geometric methods for determining π . The circle as conic section
	.27	Systems of several circles. Radical axis and centre
	.28	Construction of circles
	513.3	Solid geometry (stereometry) in general
	.31	Points, planes and straight lines. Trihedrals. Tetrahedrals
	.34	Polyhedra. Solid angles, etc. → 548.1
+	513.4	Solid geometry of curved surfaces
	.43	Right cylinder. Right cone
	.44	Sphere: Poles and polars, sphere as a quadric
	.45	Spherical triangles and polygons
	.46	Systems of several spheres
	.47	Construction of spheres: Malfatti's problem, etc.
	.491	Constructions with rule and compasses. Geometrography
	.492	Division of angle into three or more parts: approximate construction
	.493	Duplication of the cube: approximate construction
	.494	Approximate rectification and quadrature of the circle and its arcs
	513.5	Conic sections, quadrics and varieties of the second degree
	.51/.55	Conics. Conic sections
	.511	Generalities: Various definitions. General theorems about the generation of conics. Homographic transformation, etc.
	.512	Poles and polars (conics)
	.513	Centres. Diameters. Axes. Asymptotes
	.514	Tangents
	.515	Normals (conics)
	.516	Curvature (centre, radius, etc.) of conics
	.517	Foci and directrices
	.518	Degenerate conics

	513.521	Areas and arcs of conics
	.522	Parabola: special properties
	.523	Equilateral hyperbola: special properties
	.524	Construction of a conic determined by five conditions
	.525	Construction of a parabola or an equilateral hyperbola dtermined by four conditions
	.526	Polygons inscribed or circumscribed in a conic
	.527	Simple geometric loci deduced from a conic. Polars, conchoids, caustics and other loci
	.53	Various theorems and constructions (concerning conics)
	.541	Systems and properties of two or more conics
	.542	Point pencils and line pencils (of conics)
	.543	Confocal conics and inscribed or circumscribed polygons
	.544	Point nets and line nets
+	.55	Conic systems dependent upon more than two parameters
	.56/.58	Quadrics
	.561	General properties, definitions, generation, etc.
	.562	Cones of the second order and other special quadrics
	.563	Poles and polars (quadrics)
	.564	Centres. Diameters. Axes. Diametrical and principal planes. Asymptotic cones
	.565	Plane sections
	.566	Tangential planes and circumscribed cones
	.567	Rectilinear generatrices. Skew surface of revolution
	.568	Normals (quadrics)
	.569	Focal surfaces
	.571	Confocal quadrics
	.572	Curvature and lines of curvature (quadrics)
	.573	Geodetic lines. Umbilics, etc.
	.574	Lines drawn on surfaces of the second order
+	.576	Construction of a quadric determined by nine conditions
	.577	Simple geometric loci deduced from a quadric : conchoids, caustics and other loci
	.578	Systems of two quadrics (point pencil and point line)
	.579	Systems of three quadrics. Point net and line net
	.581	Linear systems of quadrics (3, 4 and more parameters)
	.582	Areas and volumes of quadrics
	.583	Special properties of certain quadrics. Paraboloids. Hyperboloids
	.59	Quadric varieties V_n^2

	513.6	Algebraic curves, surfaces and varieties. Special transcendental curves, surfaces, varieties
	.61	Algebraic plane curves
+	.611	General projective properties: points, tangents, poles, nets, etc.
+	.612	Geometry on a line
+	.613	Metrical properties (plane algebraic curves)
+	.614	Curves from the point of view of genus. Hyperelliptics, etc.
+	.615	Curves of the third order or the third class. Hypocycloids, tritangent conics, etc.
+	.616	Curves of the fourth order or the fourth class: quartics, etc.
+	.617	Curves of higher order and class than four
+	.618	Special curves. Isotropic curves, etc.
	.62	Algebraic surfaces
+	.621	Projective properties
+	.622	Metric properties
+	.623	Surfaces of the third order
+	.624	Surfaces of the fourth order
+	.625	Surfaces of the third and fourth class
+	.626	Surfaces of the fifth and sixth order
+	.627	Ruled surfaces
+	.628	Surfaces from the point of view of birational representation and transformations
+	.629	Special surfaces. Isotropic surfaces, etc.
	.63	Algebraic skew curves
+	.631	Projective properties
+	.632	Metric properties
+	.634	Curves from the point of view of genus: zero, one and two (hyperelliptic, etc.)
+	.635	Skew cubics, quadrics, etc.
+	.636	Skew quartics, cyclics, etc.
	.64	Transcendental curves and surfaces. Trigonometric, logarithmic & exponential curves. Cycloids, catenaries, spirals, quadratrices, etc.
	.65	Algebraic twisted curves (not in the space S_3) .651/.654 ≙ .611/.614

	513.66	Algebraic varieties of order greater than two, with ∞^{n-1} points in S_n .661/.664 ≙ .621/.624
+	.665	Varieties of order greater than four
	.67	Algebraic varieties of order greater than two, with ∞^{n-k-1} points in S_n, where $0<k<n-2$ ≙ 513.66
	.68	Transcendental twisted curves and varieties
	513.7	Line and enumerative geometry. Infinitesimal and kinematic geometry
	.71	Complexes and congruences. Line geometry
+	.712	Complexes of straight lines: linear, rectilinear
+	.713	Complexes of spheres: linear, quadratic
+	.714	Complexes of conics and other curves
+	.715	Complexes of quadratics and other surfaces
	.72	Connexes. Systems of curves, surfaces and varieties. Enumerative geometry
+	.723	Connexes
+	.724	Non-linear systems of curves and of surfaces
	.73	Infinitesimal, differential and kinematic geometry
+	.732	Plane and spherical curves
+	.733	Skew curves
+	.734	Ruled surfaces
+	.735	Surfaces in general and lines drawn on a surface
+	.736	Systems and families of surfaces : helicoid, spiral, etc.
+	.737	Ruled space and circular space
+	.738	Kinematic geometry. Trajectories of points
	.74	Multi-dimensional infinitesimal geometry and kinematics
	.75	Geometric transformations (generally) : homography, homology, affinity. Correlation and reciprocal polars. Inversion. Birational and other transformations

	513.76	Transformations in the plane and in threedimensional space
+	.761	Homography, homology and affinity
+	.762	Correlations and transformations by reciprocal polars
+	.763	Isogonic transformations
+	.764	Birational transformations
+	.765	Representation of one surface on another
+	.766	Various transformations
	.768	Stereology
	.77	Geometric transformations of multi-dimensional space ≙ 513.76
	513.8	Non-Euclidean, multidimensional and other geometries
	513.81	Non-Euclidean geometry: curvature of space, etc. Lobatschevski's geometry. Riemann's geometry
	.82	Multi-dimensional geometry → 513.59; 513.65/.68; 513.74; 513.77; 514.9; 515.9; 516.9
	.83	Analysis situs. Geometry of position. Topology
	.84	Theory of configurations
	.85	Modular geometry
	.86	Non-Archimedean geometry
	.87	Perceptual geometry (apparent proportions)of real structures. Mathematical stereograms. Infinite geometry
	.88	Spaces of an infinity of dimensions. Functional spaces. Hilbert's space
	514	TRIGONOMETRY AND POLYGONOMETRY
	514.1/5	Plane trigonometry
	.1	Generalities. Trigonometric functions. Addition formulae
	.2	Multiplication. Expressions for sin mx, cos mx, tan mx. Properties of polynomials
	.3	Division. Expressions for $\sin \frac{x}{m}$, $\cos \frac{x}{m}$, $\tan \frac{x}{m}$. Solution of the cubic equation
	.4	Relations between the trigonometric functions of several angles
	.5	Formulae and problems relative to plane triangles and polygons
	514.6	Spherical trigonometry → 513.45; 517.562
	514.9	Extension of goniometry to multi-dimensional geometry. Polygonometry → 513.82

515	DESCRIPTIVE GEOMETRY Projections. Perspective
.1	Generalities. Problems concerning the straight line, plane, circle and sphere
.2	Problems concerning surfaces and curves
.3	Method of topographical projections
.4	Stereotomy
515.5	Cyclography
.51	Orthographic projection. Orthogonal rectangular parallel projection
.52	Spherical or globular projection
.53	Stereographic projection
.55	Gnomonic projection
.56	Conical projection in general
.57	Cylindrical projections in general
.591	Mercator's projection
.592	Equal-area projection
.593	Linear projection. Quenstedt's projection
.598	Reflex projection, e.g. Laue's method and reflectography
515.6	Perspective Cf. 515.96
.61	Conical, central perspective
.68	Cavalier perspective
.69	Axonometric and isometric perspective
.7	Shadow representation
.8	Other [illegible] (one-dimensional) representations
.91	Multi-dimensional descriptive geometry → 513.82
.96	Multi-dimensional perspective

516	ANALYTICAL AND CO-ORDINATE GEOMETRY
516.1/.4	Classical (Cartesian) analytical geometry
.1	Generalities. Plane or two-dimensional geometry
.2	Curves
.3	Geometry in space
.4	Curved surfaces
516.5/.9	Modern analytical geometry
.5	Co-ordinates (generally): trilinear, tetrahedral, barycentric
.6	Systems in the plane, on the sphere, on a surface, and in space
.7	Geometric representation of imaginary figures
.8	Vector methods
.9	Multidimensional analytical geometry → 513.82
517	ANALYSIS. CALCULUS GENERALLY
.1	General principles. Logic. Axiomatics. Boolean algebra
.11	Mathematical logic and metalogic
.12	Mathematics and axiomatics (formalism, intuitionalism, etc.)
.13	Representation of real numbers by limiting processes. Constancy
517.2	Differential calculus
.22	Differentials and derivatives. Cf. 517.32
.23	Derivatives of any order
.24	Change of variables
.25	Formation of differential equations
.26	Taylor's and Maclaurin's series for real variables. Values of indeterminate expressions
.27	Study of the variation of functions. Maxima and minima
.28	Other analytical applications of differential calculus
+ .29	Fundamental questions in differential calculus. Non-differentiable stationary functions

	517.3	Integral calculus
	.31	Single indefinite integrals. General method of integration. Rational functions
	.32	Binomial diffrentials
	.37	Multiple integrals. Definitions. Change of variables. Special definite integrals, etc.
	.38	Definite integrals, simple or multiple. Existence of the integral. Theorem of the mean
	.39	Other questions relative to integral calculus Cf. 519.53
	.391	Differentiation and integration under the integral sign
	.392	Numerical calculation of definite integrals. Approximation methods. Quadrature formulae Cf. 518
	.394	Integrals of total differentials. Conditions of integrability
+	.397	More general theories of integration. Stieltjes's integrals
	517.4	Functional dterminants. Differential forms. Differential and integral operators
	.41	Functional determinants
	.42	Differential forms and parameters
	.43	Differential and integral operators and invariants
+	.431	Operators of the vector calculus Cf.512.99
+	.432	Other operators. Heaviside's operational calculus
	517.5	General theory of functions
	.51	Functions of real variables
+	.512	Representation by series and definite integrals. Fourier series and integral. Legendre polynomials. Bessel functions Cf. 517.522
+	.513	Differentiation and integration. Rolle's theorem. Taylor's series
+	.514	Functions of two or more real variables. Generalities
	.52	Infinite series, products and factorials. Algebraic continued fractions. Complex series
+	.521	Generalities: convergence theorem, approximation, etc.
+	.522	Particular series: power series, [illegible] Fourier and Dirichlet series Cf. 517.512
+	.525	Representation by continued fractions of decreasing or increasing power series

	517.53	Analytic functions of a complex variable
+	.532	Cauchy's theorem concerning the integral along a contour
+	.534	Singular points. Poles. Branch points, etc.
+	.536	Natural cuts and lacunary functions
	.54	Conformal representation and analogous subjects
	.544	Dirichlet's, boundary value and analogous problems dependent upon conditions on the boundary of a domain (problem of boundary values)
	.55	Functions of several complex variables
	.56	Algebraic, circular and various other functions
	.562	Circular, exponential, logarithmic functions
	.564	Hyperbolic functions. Bessel and Lamé functions. Spherical harmonics
+	.566	Various functions. Riemann's zeta function, etc.
	517.6	Definite integrals. Eulerian integrals
+	.61	γ (gamma) functions
+	.62	Logarithmic integral. Cf. 511.28
+	.63	Laplace transforms. Cf. 517.942
	517.7	Elliptic functions and their applications
+	.71	θ (theta) functions and general properties of the theta function
+	.72	Doubly periodic functions
+	.73	Development of elliptic functions
+	.74	Addition and multiplication: formulae, theory
+	.75	Transformation (elliptical functions)
+	.77	Modular functions
+	.78	Application of elliptic functions: algebraic, geometric, etc.
	517.8	Hyperelliptic, Abelian and automorphous functions (Fuchsians, Kleinians, etc.)
+	.81	Abelian integrals
+	.83	Abelian functions
+	.84	Multiplication and transformation of hyperelliptic functions
+	.85	Applications of Abelian integrals, e.g. to algebra, mechanics
+	.86	Automorphous functions (Fuchsians, Kleinians, etc.) and other functions

517.9	Differential, partial differential, linear and functional equations. Recurrent series
.91	Differential equations: generalities, irreducibility, etc.
.92	First order differential equations
.93	Special differential equations of higher order and non-linear. Binominal equations
517.94	Linear and partial differential equations. Functional, integral and difference equations
.941	Linear equations, boundary problems, etc.
.942	Special linear (differential) equations. Laplace transformation, etc.
.943	Total differential equations. Pfaffian problem
.944	Partial differential equations (general)
.945	Partial differential equations of the first order (theory of characteristics)
.946	Partial differential equations of order higher than the first
.947	Partial differential equations with constant coefficients
.948	Functional integral and integro-differential equations
.949	Finite differences: theory, equations. Recurrent series
518	SPECIAL METHODS OF CALCULATION. COMPUTING AIDS. MATHEMATICAL GAMES
.1	Generalities concerning methods of calculation
.12	Numerical calculation methods
518.2	Logarithmic, trigonometric and other tables
-94	Four-figure tables
-95	Five-figure tables
-96	Six-figure tables
-97	Seven-figure tables
-98	Eight-figure tables
-99	Nine- and more-figure tables
.21	Arithmetic tables
.22	Logarithmic tables
.23	Angular function tables
.25	Elliptic function tables

518.3 Nomography. Theory of the abacus. Base-line tables

(083.57) Nomograms

518.4 Graphical calculation

.41 Construction of rational and irrational expressions. Graphical operations on areas and on volumes

.42 Graphical solution of equations

.43 Graphical integration. Various methods of approximation

518.5 Mechanized calculation

→ 681.3

518.6 Other methods of calculation

.61 Numerical and graphical approximation methods for solving differential equations

.62 Evaluation of empirical curves

518.9 Mathematical puzzles, games and curiosa

.91 Magic squares

.92 Chess problems and the like

519 COMBINATORIAL AND STATISTICAL MATHEMATICS. PROBABILITY. VARIATIONS. GENERAL THEORY OF GROUPS, FIELDS AND IDEALS. THEORY OF SETS AND AGGREGATES

.1 Combinatorial analysis. Permutations. Combinations, etc.

.12 Ordered or arranged systems. Permutations

.13 Systems where order is immaterial. Combinations

.14 Functions occuring in combinatory analysis

.15 Applications, e.g. to general terms of series, tables, coefficients

519.2 **Probability and statistical mathematics**

→ 311; 531.19

.21 Probability calculus

.24 Analysis and interpretation of statistical material. Frequencies. Statistical series

.241 Single statistical quantities in analysis. Correlation coefficients. Sampling theory. Relative frequencies. Means. Deviations, etc.

.242 Series in analysis: comparisons; dynamic (periodic, irregular), two- and multi-dimensional series

.25 Statistical regularity, convergence. Errors of observations, not arranged in order. Mean of probable values

.251 General theories. Statistical convergence. Law of large numbers

.9 Parameters. The probable error. Precision. Cf. 519.281

.26 Qualitative observations

.262 Observations affecting one single characteristic for which the classes A and Not-A are given. Homograde statistics. Binomial distribution

.4 Theory of Dormoy-Lexis relative to empirical stability of a relative frequency (of a statistical probability). Super-normal and sub-normal dispersion. Comparison between the schemes of Bernoulli, Poisson and Lexis

.263 Observations affecting a single (non-measurable) qualitative characteristic for which classes A_1, A_2, A_3 are given. Polynomial distribution

.264 Observations affecting many (non-measurable) qualitative characteristics A, B, C. The relation between qualitative characteristics. Theory of association and of contingency for the theory of consistency between frequencies

.27 Quantitative observations, affecting a chance variable (phenomena with measurable attributes or properties)

.271 Observations affecting a one-dimensional stochastic variable. Theory of errors of observation proper

.272 Observations affecting several (measurable) quantitative characteristics. Theory of distribution of multi-dimensional stochastic variable. Relation between quantitative characteristics. Theory of correlation

+ 519.28 Various questions: parameters, cause, expectation, etc.

.281 Parameters of statistics. Compensation. Theory of errors
→ 519.251.9

.1 Method of moments, of semi-invariants (Thiele)

.2 Method of least squares

.3 Method of least differences

.282 Theory of arranged observations. Sequences. Repetitions

.283 Statistical investigation of cause and expectation of future events: actuarial calculations, games theory, etc.
→ 368, esp. 368.3; 518.9

519.3 Calculus of variations

.31 First variations of simple integrals: maxima and minima

.32 Second variation of simple integrals

.33 First and second variation of multiple integrals

.34 Direct methods of calculus of variations. Dirichlet's principle. Rits's method, etc.

519.4 General theory of groups, fields and ideals
→ 512.4; 512.86

.41 Generalities on substitutions and groups. Transitivity, etc.

.42 Relation between groups and functions. Lagrange's theorem. Isomorphism

.43 Values of a function of k letters when y letters are permuted

.44 Abstract groups of finite order. Abelian groups, etc.

.45 Discontinuous groups

.46 Continuous, transformation groups. Lies' groups

.47 General theory of operations
Cf. 512.98 (Algebra)

.48 General theory of firlds and rings. Evaluated fields

.49 General theory of moduli and ideals

519.5 Theory of sets, aggregates

.51 General theory: arithmetical considerations

.52 Theory of point aggregates. Point varieties

.53 Theory of measure. Applications to analysis and to the theory of functions

.54 Theory of invariant properties in birational and continued transformations(geometry of position), other than topological (q.v. 513.83)

.55 Theory of continuous curves and varieties

.56 Theory of abstract aggregates.Applications to functional calculus

52 ASTRONOMY. ASTROPHYSICS. GEODESY AND SURVEYING

52.08	Measurement methods, Apparatus ≙ 53.08 and → 522
521	THEORETICAL ASTRONOMY
521.1	Celestial mechanics. Mathematical study of motion of heavenly bodies, especially in the solar system → 523.3/.8 (Motions of individual bodies)
.11	General laws of equilibrium and motion → 531
.112	Velocity in space
.113	Proper motions on the celestial sphere Cf. 521.27
.114	Radial velocities
.115	Parallactic motion, due to the sun's motion
.116	Random motion
.12	Relative motion of heavenly bodies. Universal gravitation → 530.12 (Relativity)
.13	Problem of 3 bodies, of n bodies
.14/.15	Equilibrium form and rotation of heavenly bodies
.14	Shape of heavenly bodies. Deviation from spherical
.15	Rotation of heavenly bodies
.151	Rotation phenomena: centrifugal force, period of rotation, libration
.153	Equilibrium of a rotating fluid mass. (Triaxial ellipsoids, Poincaré's pear-shaped figure, etc.)
.154	Statics and dynamics of atmospheres
521.2	Orbits and co-ordinates of heavenly bodies → 522.7
.21/.24	Orbits, orbital motion Cf. 521.312
.21	Plane of the orbit in space
.22	Position of orbit in its plane
.23	Position of heavenly body in its orbit
.24	Position of heavenly body in space
.241	Radius. Semidiameter
.242	Distance from the sun

521.25/.26	Ecliptical coordinates
.25	Heliocentric coordinates: latitude and longitude
.26	Geocentric coordinates: latitude and longitude
.27	Right ascension (R.A. or α) and declination (δ) and their variations. Proper motions in the celestial sphere. North polar distance (N.P.D. = $90^\circ - \delta$) → 521.113; 523.83
.28	Variations of latitude and longitude
.29	Other coordinates. Azimuth, etc. → 523.24; 523.854.2
521.3	**Determination of orbits**
.31	Problems of determining orbits. Circular and parabolic orbits as special cases. Elements of orbits
.312	Orbital motion. Elements of orbits Cf. 521.21/.24
.32	Determination from three observations
.33	Detrmination from four observations
.34	Variations of the elementsof the orbit
.35	Correction of approximate elements of the orbit → 528.14
.37	Kepler's equation
.38	Equation for determination of the radius vector
521.4	**Perturbations**
.41	Mutual action of the planets
.42	Influence of satellites
.43	Non-sphericity of the planets
.44	Resisting medium Cf. 523.154
521.5/.6	**Orbital motion of planets and satellites**
.5	Orbital motion of planets ≙ 523.4
.6	Orbital motion of satellites or moons
.61	The Moon (Earth's satellite)
.63/.68	Satellites of other planets ≙ 523.43/.48

	521.7	Motion of comets and meteors
	.73	Comets, periodic and non-periodic
	.75	Meteors
	.77	Possible relations between comets and meteors
	521.8	Eclipses, transits and occultations: calculations, predictions, etc. Cf. 523.38; 523.78
	.81	Eclipses of the Moon
	.82	Eclipses of the Sun. Cf. 521.85
	.83	Eclipses and transits of satellites
+	.832	Eclipses of satellites (by parent planet) ≙ 521.6 or 523.4
+	.834	Transits of satellites (across parent planet) ≙ 521.6 or 523.4
	.84	Transits of planets across the Sun
+	.841	Transits of Mercury
+	.842	Transits of Venus, e.g. "1882" (in 1882)
	.85	Occultations of the Moon
+	.852	of stars
+	.854	of planets ≙ 523.4
+	.857	of comets
	.86	Occultations by the planets ≙ 521.85
	.87	Occultations by comets and transits of comets
	521.9	Aberration, precession, nutation and pole altitude variations: theory and constants. Cf. 522.94/.95
	.91	Aberration
	.92	Precession. Nutation
	.93	Variations of the altitude of the celestial pole. International latitude service and stations. Latitude variations. Motion of the pole (orbit and coordinates of the pole). Euler's and Chandler's periods. Kimura-series ("z-Glied")

522 PRACTICAL ASTRONOMY

.1 **Observatories**

Cf. 727.91 (Architecture)

Country and place by (4/9...A/Z), e.g.(42 Todrell Bank)

+ .12 Material and mechanism of the dome or cupola

+ .13 Auxiliary buildings: meridian chambers, etc.

+ .15 Transportable observatories. Equipment for expeditions

.2 **Telescopes**

→ 535.833 (Optics)

.21 Reflectors. Mirror instruments

:523.164 Radiotelescopes

.22 Refractors. Lens objective instruments

.23 Eyepieces (oculars) and accessories

.24 Objectives

+ .25 Mountings. Tubes, etc.

.3 Meridian instruments. Meriduan circles

.4 Observation instruments (other than meridian)

.41 Sextant and quadrant, reflecting sextants, astrolabe, etc.

.42 Altazimuth

.43 Zenith telescope. Zenith camera

.44 Transit instruments other than meridian

.45 Heliometer

.46 Equatorial

.47 Prime vertical (Observations in the azimuth = ± 90°)

.5 Auxiliary instruments

→ 52.08

.51 Sidereal clock. Chronometer

→ 529.78; 681.118

.52 Electric chronometer. Electrochronograph

.53 Micrometer

.55 Illumination apparatus

.56 Insturments for solar observation

.57 Artificial horizon

.58 Heliostats. Coelostats. Siderostats

.59 Other instruments with regard to their application to astronomy

522.6	Auxiliary apparatus and methods
.61	Photographic and astrophysical equipment and methods
.62	Calculating devices, computers, etc. → 518; 681.3
522.7	**Spherical or positional astronomy. Determination of geographical longitude and latitude** → 528.28
.71	The celestial sphere. Spherical coordinates
.72	Rectangular coordinates
.76	Meridian line. Variations of the compass
.78	Use of spheres and globes
522.9	**Sources of error and corrections**
.91	Parallax
.92	Sources of error in the earth's atmosphere. Refraction
.93	Corrections in the semi-diameter and orbits of celestial bodies
.94	Effect of the finitive velocity of light. Retardation
.95	Corrections for precession, nutation, pole altitude variation → 521.9
.98	Other errors and corrections
.981	Errors arising from the observer, e.g. personal equation, decimal equation
.982	Errors arising from the apparatus (adjustment, imperfections)
.983	Empirical systematic errors (bias) of uncertain origin
523	**ASTROPHYSICS. DESCRIPTIVE ASTRONOMY** The Universe, Solar system and all heavenly bodies except the Earth → 525
523(08)	Catalogues, charts, atlases, etc. ≙ (08)Aux.I.d
(083)	Lists of catalogues. Ephemerides (e.g. Nautical Almanac)
(084)	Pictures, diagrams, photographs. Charts, maps, atlases

523.03 Astrophysical considerations, phenomena, properties, etc.

.031	Density. Mass. Gravitation. Energy. Pressure
.5	Acceleration due to gravity
.6	Energy release and conversion. Energy sources
.7	Mass, density, pressure
.032	Aggregate states, contraction, expansion, flow and mixing processes
.034	Mechanical oscillations or vibrations. Pulsation. Tidal wares
.035	Light and radiation. Luminous and spectral properties
.1	Radiation
.2	Brightness. Magnitude and luminosity. Self-luminous bodies
.24	Apparent brightness or magnitude
.25	Luminosity, or absolute magnitude
.3	Reflection. Refraction. Dispersion
.31	Reflected rays and radiation
.312	Reflection
.313	Albedo
.316	Light phase (Moon, planets, satellites). Conjunction. Opposition
.33	Spectrum and spectral properties
.331	Spectrum as a whole. Spectral range
.332	Instensity distribution in the spectrum
.334	Absorption
.336	Colour
.338	Spectral lines and bands
.31	Appearance, description
.37	Identification
.6	Changes generally: red or violet displacement
.7	Periodic changes
.339	Spectral classification
.036	Heat and thermodynamics
.33	Heat radiation, radiant heat
.38	Specific heat relationships
.51	Temperature
.7	Thermodynamic considerations. Thermodynamic equilibrium
.037	Electrical phenomena. Ionisation
.038	Magnetic, electromagnetic phenomena, incl. cosmic electrodynamics, magnetodynamics

523.04	**Astrochemistry**
.041	Physical-chemical actions. Dissociation equilibrium
.042	Occurence, distribution of the chemical elements
.044	Chemical constitution of individual heavenly bodies
.045	Polytropic index n
523.07	**Astrobiology** Life on the heavenly bodies → 576.15
523.1	UNIVERSE AND ITS STRUCTURE. COSMOLOGY. SPACE
.11	Cosmology. Structure of the universe, finite or expanding. Stellar currents. Regularities in proper motions of the stars. Galactic rotation → 521.113; 523.83
.12	Cosmogony. Hypotheses on origin and future of the universe. Nebular nad world ice theories
.14	Empty space (interstellar or interplanetary) and radiation processes therein. Temperature of a massive particle considered to be in space
.15	Hypotheses concerning a cosmic medium and motion of the heavenly bodies in a resisting medium
523.16	**Cosmic phenomena. Radio-astronomy, etc.**
.161	Cosmic dust. Interstellar matter (Calcium)
.162	Interstellar absorption, scattering, space-reddening
.164	Radio-astronomy → 621.37/.396
.165	Cosmic rays → 537.591; 551.521.6
.17	Force of repulsion
.18	Various world systems, e.g. Ptolemaic, Copernican
523.2	**Solar planetary system: description and representation**
.21	Laws of distribution of the planets
.22	Theories of origin: evolutionary, nebular; catastrophic, tidal
.23	Conjunctions and oppositions. Aspects

523.2 Movement of the solar system in space.
Apex and apical coordinants
Cf. 521.29; 523.11

.25 Constitution of the planetary system

.26 Stability of the solar system

.28 Demonstration installations. Planetarium. Gyroscope

.29 Ecliptic. Zodiac. Origin and constellations.

523.3 **The Moon. Lunar astronomy**

.31 Lunar constants (dimensions, mass). Distance . Parallax

.32 Lunar temperature. Light. Radiations. Phases.
Influence on other heavenly bodies

.322 Brightness of the Moon

.323 Phases of the Moon. Lunation or synodic month

.33 Libration. Acceleration. Secular acceleration
Cf. 521.6

.34 Aspects of the Moon's surface: mountains,
plains (seas), craters, etc. Selenography

.35 Lunar atmosphere (all observations except spectroscopic,
q.v. 523.37)

.36 Physical state of the Moon

.37 Lunar spectrum

.38 Eclipses of the Moon: (astrophysical, descriptive work only)
Cf. 521.8

.39 Pictures, photographs, charts of the Moon

523.4 **Planets, their satellites and rings**

.41 Mercury and infra-Mercurial planets

.42 Venus (Earth → 525)

.43 Mars

.44 Asteroids. Minor planets

.45 Jupiter

.46 Saturn

.47 Uranus

.481 Neptune

.482 Pluto

.483 Extra- or trans-Neptunian planets (other than Pluto)

.489 Hypothetical planets

.49 Photographs, maps and atlases of planets

	523.5	**Meteors ("shooting stars"). Zodiacal light** → 521.75
+	.03	Light and radiation, temperature, etc. ≙ 523.03
	.51	Meteorites. Bolides (fireballs). Aerolites. Siderites. Siderolites, etc. Cf. 552.6
	.53	Meteoric showers (swarms)
	.56	Relationships between comets and meteors Cf. 523.6
	.57	Spectra (of meteors)
	.58	Height and layers of the atmosphere from meteor observations
	.59	Zodiacal light and counterglow → 551.594.5
	523.6	**Comets. Cometography** → 521.73; 523.56
+	.61	Occurence and development of comets
+	.66	Constitution of comets
+	.661	Nucleus
+	.662	Head
+	.663	Tail
+	.67	Spectra of comets (nucleus, head, tail) .671/.673 ≙ 523.661/.663
	523.7	**The Sun. Solar astronomy**
	.71	Solar constants, dimensions, etc.
	.72	Solar radiations: heat, light. Theory of their origin
	.73	Apparent motion, rotation of the Sun. Solar coordinates → 525.38 (Tables)
	.74	Surface of the Sun. Photosphere. Solar activity. Sunspots. Faculae, etc.
+	:778.32	Photography of the Sun's surface
	.75	Chromosphere. Prominences. Gaseous eruptions. Solar corona or external envelope
	.76	Internal structure. Magnetic field. Atomic and nuclear disintegration, etc. (details → 523.03/.04)
	.77	Spectra of the Sun's parts (sunspots, faculae, prominences, corona, etc.) and of the photosphere → 535.334 (Optics)
	.78	Eclipses of the Sun. Cf. 521.8
	.79	Pictures, photographs, charts, maps, atlases of the Sun

523.8 STARS (FIXED STARS). STELLAR ASTRONOMY

.81 Positions, parallaxes, distances of the stars
.82 Magnitudes (apparent brightness observed from the Earth). Diameters. Radiation. Visibility. Luminosity. Mass
+ .823 Dimensions. Diameter. Mass. Energy. Luminosity
.83 Proper motions, velocities, rotation of the stars

523.84 Novae, new or temporary stars. Variable stars. Double and multiple stars. Invisible stars

.035.9 Light and brightness phenomena (of variable stars)
+ .91 Light variation
+ .92 Light curve
+ .93 Special values of apparent brightness. Magnitude classes
+ .94 Correlation between period, luminosity, spectral class, etc.
.841 New, temporary and lost stars
.1 Novae, super- and quasi-novae. New and temporary stars
.3 Variable stars: observations, studies; Mira, Cepheid, etc.
.8 Lost stars
.9 Eclipsing variables
.842 Double stars. Multiple stars

523.85 Star clusters. Nebulae. Milky Way. Galaxies

.851 Stellar clusters: observation, constitution, etc.
.852 Nebulae
+ .2 Galactic nebulae: diffuse, planetary, etc.
+ .3 Extra-galactic nebulae: spiral, irregular, etc.
.854 Milky Way or Galaxy
.1 Description. Special parts. Dark lanes. Star clouds. Outline and spatial form. Dimensions. Spiral arms, Galactic nebulae. Dark nebulae. Dark clouds. Total brightness. Integrated spectrum, etc.
.2 Galactic coordinates, distribution, etc.
.3 Dynamics of the Milky Way. Galactic rotation, etc.
.4 Milky Way as object of comparison
.855 Galaxies. Metagalactic and hypergalactic systems. Other systems similar to the Milky Way
.859 Charts, diagrams of star clusters, nebulae and Milky Way

523.87 Spectra of stars and nebulae

→ 535.33

.872 Photography and measurement of stellar spectra

.873 Types of spectra: classification, fine structure of lines

.874 Shift of spectral lines. Spectrum and motion

.877 Physical and chemical constitution of stars

523.88 Constellations and their origin

→ 523.29

523.89 Astronomical catalogues and charts (in general)

→ 523(08)

525 THE EARTH (considered astronomically)

→ 528; 551.1

525.1 Constants (of the Earth)

.11 Mass. Weight. Distribution of mass. Gravitation
→ 528.27; 550.312

.12 Density. Specific gravity. Elasticity

.13 Dimensions. Diameter. Magnitude

.14 Shape and figure of the Earth. Equatorial belt. Flattening. Ellipsoid. Geoid. Radius of curvature
→ 528.2 (Geodesy); 551.11

.15 Distance of the Earth from the Sun. Solar parallax. Radius of the Earth's orbit

525.2 Physics of the Globe (considered astronomically)

→ 550.3; 551.5

.21 Heat, thermodynamics, temperature of the Earth

.22 Light reflected by the Earth and its clouds, e.g. ash-coloured "Earth shine" on dark part of crescent Moon. Other radiations emitted by the Earth. Albedo

.23 Terrestrial or atmospheric electricity, potential, etc. Cosmic influences on non-geomagnetic terrestrial processes
→ 550.37; 551.594.5

.24 Terrestrial magnetism. Cosmic influences
→ 538.7 (Physics); 550.38 (Geophysics)

525.3 Orbit and rotation of the Earth

.31/.34 Orbit of the Earth
.31 Period of revolution. Year
.32 Obliquity of the ecliptic
.33 Eccentricity of the orbital motion
.34 Perturbations (of Earth's orbit)
.35/.37 Rotation of the Earth (and its demonstration)
.35 Rotation (of the Earth on its axis)
.36 Foucault's pendulum
.37 Deviation of falling bodies and projectiles due to rotation of the Earth on its axis
→ 531.114
.38 Solar tables. Apparent diurnal motion (of the Sun)
→ 523.73

525.5 Seasons (of the Earth and other heavenly bodies)

.51 Influence of the inclination of the Equator to the ecliptic. Obliquity of the ecliptic
.52 Influence of the eccentricity of the Earth's orbit
.53 Secular [illegible] displacement of the seasons
.54 Seasons on the diffrent planets and their satellites

525.6 Tides. Ebb and flow

→ 532.596; 551.466

.61 Mathematical theories of tides
.62 Action of Sun and Moon with respect to the Earth's rotation. Tidal effects on land, water and atmosphere
.63 Distribution of tides. Diurnal inequalities. High and low tides
.65 Rapidity of rise of flood tide. Sudden flows
.66 Tidal phenomena in lakes and rivers. Bores. Seiches
.67 Supposed cause of retardation in the Earth's rotation

525.7 Terrestrial atmosphere
→ 551.51; 551.59

.72 Astronomical investigations of the Earth's atmosphere

.73 Theories of atmospheric influence on astronomical measurements. Theories of atmospheric refraction and extinction

.75 Colour and brightness of the sky. Twilight
→ 551.593.53/.55

+ ≠ 526 (Geodesy, surveying, cartography); [1960] → 528 ≠

527 NAVIGATION. NAUTICAL AND AERONAUTICAL ASTRONOMY
→ 528.28; 529.7

.4 Sumner's method

.5 Great-circle sailing

527.6 En-route navigation

.61 Dead reckoning

.62 Position-fixing (in aircraft)
Cf. 528.28

.621 Identification of unique position. Single fix

.622 Azimuth determination

.623 Elevation, determination

.624 Distance, range and height determination

.625 Speed determination (relative to a fixed point)

.626 Velocity determination

.63 Pilotage. Map-reading

.64 Homing

527.7 Obstacle avoidance

527.8 Approach (harbour, airfield) navigation
≙ 527.6

	528-18/-79	Details of instruments and equipment ≙ 62-18/-79, but → 528.5 for main use
	.01	Preparation, reconnaissance, marking stations
	.02	Geodetic measuring methods
	.021	Distance measurement methods
+	.1	Mechanical methods
+	.4	Optical and trigonometric methods
+	.6	Electrical methods, e.g. with tellurometer
+	.7	Electro-optical methods, e.g. with geodimeter
	.022	Angle and direction measurement methods
+	.1	Horizontal angles
+	.2	Vertical angles
	.6	Oriented directions
	.024	Levelling methods (differences of elevation): geometric, trigonometric, barometric, hydrostatic, echo
	.026	Gravity measurement
+	.029	Electromagnetic frequency and wave length ranges ≙ 621.3.029
	.03	Auxiliary measurements
	.06	Result evaluation, computation, representation
	.061	Correction and reduction of measurements
	.063	Geodetic computations
	.065	Textual representation of survey results
	.066	Tabulated representation of survey results. Trig lists. Station diagrams
	.067	Graphical representation of survey results. Field diagrams. Plotting. Descriptions of stations
	.08	Principles of measurement and instrument construction ≙ 53.08, e.g.
+	.082	Principles of measurement and instrument design
+	.084	Instrument construction, elements and parts
+	.085	Indicators, scales, dials, etc.
+	.087	Observation and recording of results
+	.088	Errors and their correction. Accuracy and sensitivity

528.1 Theory of errors and adjustment (geodesy, photogrammetry)

.11 Theories of errors in observation
.13 Preparation of observation programmes with respect to theory of errors
.14 Adjustment by method of least squares
.16 Other methods of adjustment
.162 Successive approximations
.165 Graphical adjustment
.181 Treatment of adjustment problems by matrix and tensor calculus

528.2 Figure of the Earth. Mathematical, physical and astronomical geodesy

Cf. 525.1/.14 (Astronomy)

.21 Fundamentals derived from potential theory. Level surfaces. Geoids
.22 Methods of determining the figure of the Earth
.221 Geometric (static) methods: use of longitudinal and latitudinal arc measurements → 528.28
.223 Physical (dynamic) methods: use of gravity measurements → 521.12
.225 Astronomical methods: use of precession, nutation and lunation irregularities → 521.92; 523.323/.33
.23 Approximate surface of the Earth: geodetic projections, co-ordinate systems
.231 Spheres
.232 Ellipsoids of revolution
.1 Reference ellipsoids and their basic values
.2 Computations on the ellipsoid
.22 Normal sections. Geodetic lines. Staking and curves. Rhumb lines
.23 The geodetic triangle: excess, area, transformation into planes → 513.45
.24 Relationships between the figures of the Earth and approximate surfaces
.233 Triaxial ellipsoids. ≙ 528.232
.234 Level spheroid
.235 Representations of approximate surfaces. Geodetic, map projections. Graticule design. Grids
.236 Coordinate systems and conversions
.24 Relations between the shape or figure of the Earth and its approximate surface
.241 Deflections of the vertical
.242 Geoid undulations. Astronomical levelling
.26 Arc measurement
.27 Gravity measurement → 528.56; 531.5

	528.28	Astrogeodetic determination of position. Geographical coordinates
	.281	Latitude determination (polar altitudes observation)
	.282	Longitude determination
	.283	Azimuth determination
+	.288	Astronomical orientation and connection
	528.3	Geodetic surveying. Station determination
	.31/.35	Planimetric determination of stations
	.31	Outline and structure of the geodetic survey. Orientation. Point of origin. Laplace stations. Datum plane
	.32	Base-line measurements
	.33	Trigonometric networks. Triangulation
	.331	Primary, first-order triangulation
	.335	Filling-in of network. Second- and minor-order triangulation Cf. 528.41
	.338	Planimetric, trigonometric and traverse stations
	.34	Special methods of trigonometric station determination
	.341	Flare triangulation
	.342	Solar eclipse method → 521.78; 523.78
	.343	Star occultation method → 521.8
	.35	Trilateration
	.37/.38	Vertical determination of stations
	.37	Elevations of various kinds. Levelling principles
	.38	Level networks: figuration and observation
	.381	Primary, first-order level network
	.385	Filling-in of level networks. Second- and minor-order level networks
	.388	Bench-marks. Levelling stations
	.389	Special applications of levelling and depth measurement
	528.4	Plane surveying. Field and land surveying. Topography. Cadastral, engineering and special fields of survey
	.41	Detail triangulation. Plane-table surveying
+	.412	Intersection, single-point intercalation
+	.414	Traversing, supplementary points

	528.42	Technical surveys
	.421	Planimetric surveys
	.422	Levelling
	.425	Tacheometry. Topography
	.44	Cadastral survey, re-survey, revision, etc.
	.45	Urban surveying → 69.051; 711
	.46	Agricultural (soil improvement) survey → 626.8; 631.4; 711
	.47	Hydrographic and coastal surveying
	.48	Engineering and special fields of survey
	.481	Geotechnical, rock and soil displacement survey → 624.12/.13
	.482	Structural, foundation and subsidence survey → 622.83; 624.13/.15; 69.058/.059.22
	.484	Underground, mining (gallery and shaft) survey → 622.1:528 and 624.1, esp. 624.19
	.486	Marking or staking out. Tracing
	528.5	Geodetic instruments and equipment → 522.2/.6; 531.7; 535.8; 621.317; 681.2
	-18/-79	Details of instruments and equipment ≙ 62-18/-79
	.51	Distance and length measuring devices → 531.71
	.511	Base-line devices. Invar wires or tapes
	.512	Geodetic length-measuring devices. Subtense bars, tapes, etc.
	.514	Optical instruments with base at the instrument
	.516	Electrical instruments. Tellurometers, etc.
	.517	Electro-optical instruments. Geodimeter, etc.
	.519	Accessories for distance measurement
	.52	Angle and direction measuring devices → 531.74
	.521	Theodolites and accessories
	.526	Instruments for measuring oriented directions. Gyroscopes, etc.
	.528	Devices for marking or staking out angles and directions
	.53	Combined angle and distance measuring devices
+	.531	Tacheometer theodolites
+	.533	Plane tables
+	.534	Alidades
+	.535	Topometers

528.54 Levelling, depth and inclination measuring devices
→ 531.717; 532.29

.541 Levels. Clinometers. Levelling staffs, target rods

.543 Automatic levels

.546 Hydrostatic levelling devices
→ 532.29

.548 Direction-finding and plumbing devices

.56 Gravity measuring instruments or devices

.561 Pendulum instruments

.563 Gravimeters

.565 Torsion balances. Horizontal pendulum

.568 Other gravity measuring instruments

.58 Marking out and signalling equipment. Devices for finding marked points

.59 Plotting instruments and devices
→ 528.923; 744.3

528.7 PHOTOGRAMMETRY. Aerial and terrestrial photogrammetry
→ 550.81; 778.3, esp. 778.35

(203) Aerial photogrammetry

(21) Terrestrial photogrammetry

+ .029 Electromagnetic frequencies and wave-lengths. ≙ 621.3.029, e.g.

.67 Light rays of 3 to $< 5.10^{6}$ THz or 1.10^{-4} to $> 6.10^{-11}$ m.

.68 Gamma rays of 1.10^{6} to $< 6.10^{8}$ THz or 3.10^{-11} to $> 5.10^{-13}$ m.

.69 Cosmic and other elementary particle rays of 6.10^{8} THz and higher frequencies or 5.10^{-13} m. and smaller wave-lengths

528.71 Making photogrammetric exposures or photograms

.711 Methods and techniques

.1 Central projection or perspective
→ 515.6

.4 Photographic scanning. Continuous strip

.7 Electronic scanning and registration

.714 External influences on image formation

.715 Photogrammetric survey flight

:629.7 Survey flying and navigation

528.716	Determination of camera orientation elements at exposure. Measuring, recording and control techniques
.718	Terrestrial photogrammetric techniques: relations between object distance, focal length and distance between exposures. Image scale. Base ratio
528.72	Orientation and restitution of photograms
.721	Orientation and restitution of photograms in central projection → 515.6
.1	Single photograms: orientation and restitution
.15	Compilation of mosaics
.16	Map-making by tracing photograms
.2	Pairs of photograms: orientation and restitution
.28	Stereo photograms and stereo mosaics
.722	Instruments for restitution of photograms in central projection
.724	Restitution of photographic scans and continuous strip photograms
.725	Special instruments for restitution of photographic scans and continuous strip photograms
.727	Restitution of electronic scans
.728	Special instruments for restitution of electronic scans
528.73	Aerial triangulation. Control and pass points determination
.731	Radial triangulation
.732	Planimetric control from photograms (other than by radial triangulation)
.735	Spatial aerial triangulation
.738	Terrestrial ground control determination
528.74	Applications of photogrammetry
	Divide by :0/9, with .029... from 528.7
528.77	Interpretation of photograms
	Denote purpose by :0/9, e.g.
:355	For military purposes
:711	For physical planning and settlement research

	528.9	CARTOGRAPHY. MAPPING → 912
	528.91	Theoretical cartography, principles and methodology
	.912	Mapping
	.913	Map design. Map editing → 528.235
	.914	Generalization
	.915	Scale: Series of scales. Choice of scales
	.916	Neat line systems. Map sheet designation and size
	.918	Marginal data. Legend
	528.92	Applied, practical cartography: procedures
	.921	Practical map design
	.923	Cartographic (map) drawing techniques, bases and equipment → 528.59; 744.3/.4
	.924	Cartographic (map) engraving. Coating and coating base. Map scribers → 681.94
	.925	Mechanical aids for map plotting, e.g. strip and surface masking
	.926	Cartographic colour separation methods
	.927	Cartographic (map) reproduction and printing → 655.3; 774/777
	528.93	Topographical and landscape cartography
	.931	Plan representation. Cultural features
	.932	Relief representation. Contours. Anaglyphs
	.933	Colouring
	.935	Lettering of maps
	.936	Correction and updating of maps
	:528.4	Land survey and topographical report service
	.94	Thematic cartography
+	.951	Globes and their making
+	.952	Reliefs and their making
	.97	Style sheets. Mapping specifications

	529	CHRONOLOGY. CALENDAR. TIME → 389.2
	529.1	Day. Sidereal day. Solar day. Mean and apparent true solar time. Equation of time and its variation
	529.2	Time divisions. Era. Year. Month. Week, etc. → "..." (Aux.I.g)
+	.21	Eras
+	.22	Year: various kinds
+	.26	Month
+	.27	Week
	529.3	Calendars (in general). Perpetual calendar
+	.31	Ancient calendars Divide by Place and race, (3) and (=) Aux.I.e/f, e.g.
	(354)	Babylonian calendar
	.4	Christian calendars
+	.41	Coptic and other primitive Christian calendars
	.42	Julian calendar. Julian reform, dates
	.43	Gregorian calendar. Gregorian reform, dates
	.44	Ecclesiastical (Church) calendar. Easter cycles, dates → 264; 398.332
	.5	Calendar reform: modern projects, proposals
	529.7	Time measurement (horology), transmission, regulation → 389.2; 531.76; 681.11
	.71/.74	Astronomical time determination: by transits, altitudes, etc.
+	.74	Determination by sextant
+	.75	Time systems and reckonings, e.g. decimal division
	.76	Hours. Divisions of the day. Time transmission and signals, e.g. Onogo-signal
	.77	Standard time: universal, zonal and local
+	.771	Universal time. Greenwich mean time (G.M.T.)
	.78	Time-measuring apparatus. Clocks and chronometers. Sundials, gnomons, hour glasses, etc. → 522.51; 681.11
	.786	Time standards independent of the Earth's rotation, e.g. Quartz-crystal clocks, crystal oscillators

53 PHYSICS AND MECHANICS

53.01 Theory and nature(of specific phenomena.)Cf. 530.1

53.02 General laws (of specific phenomena)

.023 Empirical formulae

53.03 Production and causes(of specific phenomena)

53.04 Effects(of specific phenomena)

.043 Physical effects
.044 Chemical effects
.047 Biological effects

53.05 Observation, recording and visualisation(of specific phenomena)

53.06 Application and utilisation(of specific phenomena)

53.07 Apparatus and equipment (for study and production of phenomena) Cf. 539.1.07

+ .072 Models
+ .11 Static models
+ .12 Hydraulic models
+ .13 Electrical analogy models
+ .14 Photo-elastic models
+ .2 Similitude of models
+ .3 Model scales and exaggerations
+ .4 Suspensions considered as fluids
+ .5 Verification of models
+ .8 Prototypes of models

53.08 Measurement (principles, theory, methods) and measuring instruments(design,construction
→ 681.2

53.081 Units. Constants. Scales of units. Specific constants

53.082 Principles of measurement and instrument design

.1 Use of mechanical principles or phenomena : static, dynamic, centrifugal, etc.

+ .14 Use of pendulums or balance wheels

+ .16 Gyroscopic instruments

+ .17 Use of elasticity. Torsion, etc.

+ .18 Use of friction

.2 Use of hydrostatic or hydrodynamic phenomena

+ .3 Use of aerostatic and aerodynamic phenomena

.4 Use of acoustic phenomena, e.g. sound waves, ultrasonics

.5 Use of optical phenomena, e.g. reflection, interference, colour

+ .52 Photo-electric measurement

.6 Use of thermal phenomena, e.g. hot-wire

.7 Use of electrical, magnetic and nuclear phenomena

+ .72 Electrostatic phenomena, e.g. capacity changes

.73 Electrokinetic phenomena, e.g. piezo-electric phenomena

.74 Electromagnetic and electrodynamic phenomena, e.g. induction

.75 Electrolytic and electrochemical phenomena

.76 Perturbation phenomena

.77 Electronic (discharge) phenomena

.78 Magnetic phenomena

.79 Nuclear phenomena

.8 Use of chemical phenomena

.9 Use of biological phenomena

53.083 Methods of measurement and corresponding instruments

.1 Direct measurement

.2 Resonance methods

.3 Ballistic methods

.4 Null methods. Bridge methods

.5 Compensation methods

.6 Differential methods

.7 Remote measurement and indicating methods. Telemetric methods and instruments → 621.398; 654.94

.8 Summation methods, metering (and indicating)

+ .9 Mixed, intermittent-recording and other methods

.98 Micro-measurement. Measuring instruments

53.084 Measuring instruments: design, construction and components

-1/-9 Mechanical and operational details
≙ 62-1/-9

.2 Components in contact with object or phenomenon measured

.4 Tare units or components

.6 Devices for magnifying or reinforcing measured quantities.
Servo devices

.8 Storage, supply, transmission and discharge of matter and energy.
Containers, reservoirs, receivers

.81 for granular substances, powders

.82 for liquids: reservoirs, supply and flow control devices

.83 for gases and air: receivers, flow control devices

.84 for sound waves and mechanical vibrations: damping, etc.

.85 for light: sources, control, reflectors, screens, etc.

.86 for heat: sources, distribution, etc.

+ .866 Cooling and cooling devices

.87 for electricity: supply, distribution, control, discharge

.88 for magnetism: field strength regulation, etc.

.89 for radioactive and ionized substances

53.085 Adjusting, indicating, reading and accessory devices or components of instruments

.1 Braking, stopping and damping devices

.2 Zero and zero adjustment. Adjusting devices

.3 Indicating and reading devices

+ .31 Mechanical devices. Pointers, etc.

+ .32 Elements: fibres, crosswires, verniers, etc.

+ .33 Optical (scale) reading devices, eyepieces, etc.

+ .34 Light-beam indicators, reflectors, etc.

.4 Scales

.49 Scale illumination

.5 Springs and spring components
→ 62-272

.6 Housings, casings for instruments
– 62-213

53.087 Observation. Recording

	.2	Subjective observation methods
+	.22	Microscopic observations
+	.23	Telescopic observations
+	.24	Stereoscopic observations
+	.25	Cinematographic and stroboscopic observations
	.3	Apparatus for subjective methods of observation
	.35	Apparatus for observation of various phenomena : illumination and projection devices, screens, etc.
	.4	Objective observation (in general). Automatic recording
+	.42	Maxima and minima recording
+	.47	Intermittent recording of one or more variables
	.5	Photographic recording → 77.02
	.6	Graphic recording and recorders. Coordinate graphers
	.9	Converting or transforming, computing or calculating, counting and printing devices

53.088 Errors and corrections. Accuracy. Checking, evaluating and interpreting results

	.2	Errors
	.21	Error due to the observer. Personal error
	.22	Error due to the instrument
	.23	Error due to the object or phenomenon observed
	.24	Error due to the medium
	.3	Mean errors. Accuracy of the instrument. Linearisation of calibration curve .088.3 : .088.2
	.4	Limits within which an instrument may be used
	.6	Corrections (in general)
+	.7	Automatic corrections. Automatic compensation

53.089 Specification. Calibration and other measurement problems

	.5	Specification of instruments. Sensitivity, inertia, etc.
	.6	Calibration, testing and control of instruments and measuring apparatus
	.68	Standard calibration and test pieces

53.09 Specific influences or effects underlying phenomena

.091 Mechanical influences or effects (except pressure)
.092 Pressure influences or effects
.093 Humidity
.096 Temeperature
.097 Electrical influences or effects
.098 Magnetic influences or effects

530.1 GENERAL PRINCIPLES OF PHYSICS

:140.8 World outlook of physics
.11 The absolute in individual phenomena. The ether: theories, models
.12 Relativity principle (Einstein et al.)
+ :531.18 Special theory of relativity
+ :531.51 Relativity theory of universal gravitation
+ .13 Principles of constancy and variability
.131 Principle of constancy
→ 531.62
.132 Principle of variability

530.14 Synthesis of principles of constancy and variability.
Atomism in general
→ 539.18; 541.12

.145 Quantum theory. Wave mechanics
→ 535.14
+ .5 Plank's constant h and its determination
+ .6 Quantum mechanics. Wave mechanics and equations, matrices, etc.
+ .7 Perturbation theory

+ 530.15 Principles of action and reaction

.151 Principle of action (Actio)
.152 Principle of reaction (Reactio)
.1 Resistance. Inertia. Hysteresis. Cf. 538.23
.2 Susceptibility. Cf. 538.214

	530.16	Principle of casuality and probability → 519.2; 536.75
	.161	Principle of order in the succession of phenomena. Irreversibility. "Wärmetod"
	.162	Principle of disordered phenomena. (Brownian movement). Reversibility. Principle of indeterminacy
	530.17	Similarity principles. Analogies
	530.18	Linearity
+	.181	Linear phenomena
+	.182	Non-linear phenomena
	530.19	Generalities on fundamental functions such as potential, gradient, intensity and capacity
	531/534	MECHANICS
	531	GENERAL MECHANICS. SOLID AND RIGID BODY MECHANICS
	-1	One-dimensional. Lines
	-2	Two-dimensional. Areas. Surfaces
	-3	Three-dimensional. Bodies. Volumes (Euclidean space)
	-4	Multidimensional space
	-9	Non-Euclidean space
	.01	Mathematical theory of mechanics
+	.011	Analytical theory of mechanics
+	.012	Geometrical theory of mechanics
	531.1	KINEMATICS. GEOMETRY OF MOTION
	.11	Principles and definitions
	.111	Dimensions. Space and time
	.112	Velocity. Cf. 531.15
	.113	Acceleration. Cf. 531.15
	.114	High-degree acceleration, e.g. Corioli-acceleration
	.115	Initial conditions
	.12	Motion of points

531.13	Motion of figures
.131	Motion of one-dimensional figures
.132	Motion of two-dimensional figures. Moving planes
.133	Motion of three-dimensional figures
.134	Motion of multidimensional figures
.14	Translation. Sliding
.15	Rotation. Angular velocity and acceleration
.16	Free motion. Composition of translations and rotations
.17	Motion under constraint
.18	Relative motion
.19	Statistical mechanics → 519.2
531.2	STATICS AND GRAPHICAL STATICS. FORCES. EQUILIBRIUM → 531.35; 531.42
.21	Statical laws and experiments. Forces, lines and fields
.22	Composition and resolution of forces
.221	Equilibrium (of external and internal forces). Parallelogram of forces. Parallel and non-parallel forces. Funicular polygons. Catenaries
.222	Tensional forces
.223	Compressional forces
.224	Bending stresses
.225	Torsional stresses
.226	Shearing stresses
.228 m	Secondary stresses
.23	Moments
.232	Turning moments
.233	Moments of inertia
.234	Statical moments. Moments of a force
.24	Centre of gravity (-1 lines, -2 areas, -3 volumes)
.25	Graphical and analytical statics → 624.04
.252	Specific stresses
.255	Elongated bodies (one-dimensional extension)
.258	Flat, plane bodies (two-dimensional extensions)
.259	Solid or hollow bodies (three-dimensional extension)

531.26	Attraction. Laws and applications of potential. Specific solutions of integration problems
.261	Newtonian attraction. Potential. Equipotential. Lines and surfaces
.262	Solution of Neumann's and Dirichlet's problems
.266	Various generalizations for attraction and potential (in Euclidean and non-Euclidean space)
531.3	DYNAMICS. KINETICS
.31	Fundamental principles of dynamics
.311	Relations between force, mass and acceleration
.312	D'Alembert's principle and principles derived therefrom
.313	Principle of virtual velocities
.314	Principle of least action. Hamilton's principle and equations
.315	Principle of least constraint
.32	Motion of a point mass → 531.53; 534.01/.1
.33	Tautochronism. Brachystochronism. Isochronism
.35	Motion under the action of central forces. Centripetal and centrifugal forces
.36	Motion of a solid body or system of rigid solid bodies. Small motions. Stability. Poinsot's theory
.37	Motion of a solid body not acted on by any force. Free motion
.38	Various motions of a solid body, e.g. about a fixed point, about an axis. Solids of revolution. Gyroscopes. Tops
.391	Dynamics of material systems, e.g. cables, cords, membranes
+ .395	Dynamics of systems subjected to conditions varying with time
531.4	WORK. WEIGHT. MASS. FRICTION. PASSIVE RESISTANCE
.41	Work. Efficiency
.42	Weight. Mass. Specific gravity. Density → 531.21; 531.75
.43	Friction (in general) → 539.62
.44	Sliding friction
.45	Rolling friction
.46	Combined sliding and rolling friction
.47	Resistance of an axis of rotation
.49	Various passive resistances

531.5 GRAVITY. GRAVITATION. PENDULUM. BALLISTICS

.51	Laws of universal attraction or gravitation → 528.27; 530.12; 531.26; 550.312
.52	Laws of falling bodies
.53	Pendulum theory. Types of pendulum
531.55/.58	**Ballistics** → 623.5
.55	External ballistics. Path and motion of projectiles. Trajectory → 623.5
.551	Motion in a vacuum. Equation, co-ordinates and geometrical properties of the trajectory
.552	Motion in a resisting medium (air, water, etc.) → 532.582
.555	Elements of the trajectory. Laws of air resistance → 623.546
.557	Study of rectilinear motion. Horizontal and vertical motion
.558	Calculations of range tables. Various tables
.56	Secondary motions in the air. Effects of [illegible] spin, projectile and variations of ballistic elements
.561	Laws of spinning projectiles. Nutation. Drift
.562	Influence of density variations in the resisting medium
.564	Influence of atmospheric air disturbances. Deviation or drift due to the wind
.565	Influence of projectile characteristics, e.g. weight, centre of gravity, stability
.566	Experimental study of deviations of aim, misfiring, stray bullets
.567	Probability of hitting. Projectile dispersal
.57	Internal ballistics. Motion in the barrel
.58	Terminal or target balistics. Penetration into the target → 623.56

531.6 MECHANICAL ENERGY. CONSERVATION. IMPACT

.61	Energy and momentum
.62	Law of the conservation of energy (in mechanics)
.64	Potential energy. Energy of space
.65	Kinetic energy. Energy of motion
.66	Impact. Collision of elastic and inelastic bodies

	531.7	MEASUREMENT OF GEOMETRICAL AND MECHANICAL MAGNITUDES : INSTRUMENTS, METHODS AND UNITS → 389.1; 621.317; 681.2
	.08	General principles and theories of measurements and construction of measuring apparatus ≙ 53.08, e.g.
+	.081	Units. Constants
+	.084	Instruments: design, construction, elements
	531.71	Linear measurements. Length, distance, etc.
	.711	Standard of length. Standard metre. Line and end standards
	.712	Measurement of base lines
	.713	Comparators, cathetometers, etc.
	.714	Mechanical precision instruments. Micrometer and slide gauges
	.715	Optical precision instruments. Interferometers, etc.
	.716	Less exact measuring appliances for everyday and industrial use. Rules. Tape measures. Compasses. Dividers, etc.
	.717	Thickness, diameter, height or depth, flatness and straightness measurement: methods, instruments, appliances
	.1	Thickness, diameter and gap measurement
	.2	Outline and profile measurement
	.3	Object height and depth measurement. Screw pitch, etc. Cf. 531.719.3/.4
	.5	Indicators. Dial gauges. Minimeters
	.7	Spherometers. Measurement of spheres
	.8	Flatness, straightness and parallelism testing
	.718	Gauges, limit gauges and gauging in general → 621.753.3
	.719	Other(linear) measurements, instruments, etc. → 528.51/.54
	.1	Curvimeters
	.2	Distance measurement → 528.51; 534.88
	.3	Depth measurement, e.g. of ocean bed Cf. 531.717.3
	.4	Height measurement, e.g. of aircraft → 629.7.058.4

531.72	Surface (area) and section measurement
.721	Planimeters, integrators
.724	Measurement of specific surface (granular materials)
.728	Measurement of surface areas with the microscope
.729	Callipers. Cf. 531.714; 531.717
531.73	Volume and cubic capacity measurement → 542.3; 681.12
.731	Solids. Hollow bodies. Bulk materials
.732	Liquids: quantity measurement
.733	Gases: quantity measurement
531.74	Angle measurement. Goniometry and clinometry → 528.52
.741	Protractors. Contact goniometers
.742	Other direct angular measurement
.743	Reflection methods. Reflection goniometers
.744	Graduated scales for mirror instruments
.745	Indirect measurement: Sine bar. T-square
.746	Clinometers
.747	Standard angle pieces
.748	Photographic goniometry. Photogoniometry
.749	Other angle measurements, e.g. solid angles
531.75	Mass and density measurement → 542.3; 681.26
.751	Mass: standards and determination
.753	Weighing methods
.754/.758	Density, specific gravity determination
.754	Density, specific gravity of solids
.755	Density or specific gravity of bulk, granular materials
.756	Density or specific gravity of liquids. Density bottles. Pyknometers. Hydrometers
.758	Density of gases

	531.76	Time, velocity and acceleration measurement
	.761	Time (interval) measurement → 529.7; 681.11
	.763	Second counters. Stop-clocks. Stop-watches
	.764	Hour counters. Pendulum clocks. Balance-wheel clocks
	.5	Quartz (crystal) clocks
	.765	Chronographs
	.767	Velocity meters → 531.77
	.768	Accelerographs. Accelerometers → 629.7.058.4
	531.77	Angular velocity measurement. Revolution counters. Tachometers,etc.
+	.772	Simple revolution counters
+	.775	Mechanical velocity indicators. Tachometers. Speedometers
+	.776	Optical velocity indicators. Kinemometers. Kinemographs
	531.78	Force, work and ~~pressure~~ pressure measurement. Dynamometers → 620.1
	.781	Force, torque, stress and strain measurement → 531.786; 531.789.1
	.783	Work measurement (in general)
	.784	Dynamometric indicators
	.785	Absorption dynamometers. Froude, Prony and rope brakes
	.786	Transmission dynamometers. Cf. 531.781
	.787	Pressure measurement. Manometers. Barometers → 551.508.4
	.1	Pressure-gauges with curved tubes. Bourdon gauge
	.2	Aneroid barometers or manometers. Hypsometers
	.3	Pressure balances (with piston)
	.4	Mercury-, liquid- or air-level instruments
+	.43	Air or liquid manometers
+	.45	Mercury barometers
	.5	Optical manometers or pressure-gauges
	.6	Micromanometers
	.7	Differential pressure gauges or manometers
+	.9	Electrical and other pressure measurements
	.91	Electrical, piezoelectric and resistance manometers

	531.788	Vacuum measurement. Vacuum meters
	.1	Mechanical, gas-kinetic, radiometer vacuum gauges
	.5	Optical vacuum meters. Discharge tubes
	.6	Thermal vacuum gauges. Conductivity meters (Pirani)
	.7	Electrical vacuum meters. Ionization gauges
	.789.1	Torsionmeters. Torque meters. Cf. 531.781; 531.786
	531.79	Other measurements. Counting and dividing devices
	.791	Methods of counting or estimating a number of units
	.792	Dividing methods, devices and machines
	.793	Measurement of the degree of curvature → 531.719.7
	531.8	THEORY OF MACHINES. TECHNICAL MECHANICS → 621.01
	532	FLUID MECHANICS (AND PHYSICS). HYDRAULICS. HYDROMECHANICS
		Class here information common to liquids and gases
	-1/-9	One-, two-, three-, multidimensional, etc. ≙ 531-1/-9
	532.1	HYDROSTATICS (GENERALLY)
	.11	Pressure. Cf. 531.787 (Measurement)
	.12	Compressibility and elasticity
+	.122	Compressibility
+	.123	Elasticity
	.13	Internal friction. Fluidity. Viscosity
	.133	Viscosity coefficients. Relation between viscosity and other constants
	.135	Rheology (flow of matter). Cf. 539.6
	.137	Viscometers
	.14	Density

532.2 Equilibrium of liquids

.21 Surface level. Surfaces

+ .217 Indicators or gauges of the level of a liquid

.22 Free surfaces

.23 Equilibrium of several superposed liquids

.24 Relative equilibrium

.25 Equilibrium of a heavy liquid rotating about an axis

.29 Levels. Spirit-levels. Communicating vessels

532.3 Immersed and floating bodies : equilibrium, buoyancy, displacement, Archimedes' principle
→ 533.13; 629.12

.31 Conditions of equilibrium

.32 Stability. Ship theory. Metacentre

.33 Equilibrium of bodies of particular shapes. Right prisms, etc.

532.5 FLUID MOTION AND FLOW. HYDRODYNAMICS
→ 629.12

. .01/.08 Principles, observations, tests, measurements. ≙ 533.6

+ .011 Motion of and in liquids. Flow

+ .011.1 Dimensional analysis. Froude and Reynolds numbers. Scale effect. Boundary shape and smoothness

+ .013 Dynamics. Drag. Stability, etc.

+ .12 Drag. Cf. 532.58

+ .2 Unsteady motion

+ .3 Steady motion

+ .4 Dynamic stability

+ .031 Hydrodynamics of frictionless fluids. Potential flow

+ .032 Hydrodynamics of viscous fluids

+ .05 Operational observations, testing and recording service

+ .07 Testing apparatus: tanks, tunnels, etc.

+ .074 Water tanks and tunnels

+ .076 Electrolytic tanks (for potential flow problems)
→ 532.5.031

+ .08 Flow measurement details
≙ 53.08 but → 532.57

532.51 Motion of fluids. Fluid flow

+	.511	Fundamental equations. Lagrange's theorem
+	.513	Steady motion. Bernoulli's theorem. Hydrodynamic pressure
	.516	Classical theory of viscous liquids. Friction in lubricants
	.517	Motion of viscous liquids in respect to type of flow
	.2	Laminar flow. Streamline flow
	.4	Turbulent flow
	.6	Pulsating flow
	.52	Conditions of motion
	.521	Theory of liquid filaments
	.522	Flow through orifices
	.525	Nozzles. Jets. Cf. 532.555
	.526	Boundary layers. Skin friction
	.527	Rotational motion. Vortices
	.528	Cavitation. Formation of hollow spaces
	.529	Flow in gas-liquid mixtures. Motion of gases in liquids
	.53	Open channel phenomena. Falls. Weirs. Jumps, etc.
+	.531	Waterfalls. Profile of nappes
+	.532	Weirs. Notches. Venturi flumes
+	.533	Overflows. Spillways → 627.83
+	.535	Critical flow in open channels. Jumps
+	.537	Inlets and outlets. Backwater and drop-down curves
	.54	Fluid motion, flow in various systems
	.542	Flow in pipes. Closed conduits running full. Siphons
	.543	Flow in open conduits, canals and rivers
	.546	Flow through porous media, e.g. packed towers. Cf. 532.68
	.55	Energy and pressure losses during flow
	.551	in straight (pipe) flow
	.552	round bends
	.553	in sluices
	.555	at constrictions. Cf. 532.525
	.556	at widenings. Diffusers

532.57 Velocity and quantity rate of flow: measurement
→ 681.121

+ .08 Measurement methods and instruments, e.g.
by head of water, by transverse sections. ≟ 53.08

.572 Gauging by weirs

.573 Measurement of surface velocity, e.g. by floats,
velocity rods, use of surface waves or ripples

.574 Measurement of internal velocity, e.g. by velocity rods,
Pitot tubes, current meters

.575 Direct measurement of quantity rate of flow, e.g.
by constrictions in pipe-lines, Venturi meters

+ .576 Measurement of loss of head or pressure
→ 531.787

532.58 Pressures induced by relative motion of
bodies and fluids. Resistance to motion
→ 532.5.013

[redacted]

+ .581 Fundamental equations. "Perfect fluid". D'Alembert's paradox

.582 Submerged bodies

.583 Floating bodies, e.g. boat hulls

.584 Suspensions considered as liquids. Fluid-solid suspensions

+ .585 Influence of shape of cross-section of stream.
Wall or interference effects

532.59 Fluid wave motion. Waves
→ 525.6; 551.466

.591 Translational waves and velocity of propagation

.592 Single or solitary waves. Propagation in a moving liquid.
Flood waves and routing

.593 Billows. Shallow and breaking (sea) waves.
Deep, long (ocean) waves. Ground swell

.594 Capillarity ripples. Influence of capillarity on other
wave phenomena. Ripple tanks

.595 Oscillating liquid columns, e.g. water in tubes.
Wave propagation in elastic pipes. Water hammer or
pressure surges. Explosion waves in liquids

.596 Classical theory of tides
→ 525.6 (Astronomy)

532.6 SURFACE PHENOMENA. SURFACE TENSION. CAPILLARITY

	.61	Surface tension. Interfacial tension
	.041	Static tension
	.042	Dynamic tension
	.612	Surface tension
	.613	Interfacial tension
	.614	Surface and boundary layer energy
	.615	Surface activity of dissolved substances. Cf. 532.691; 541.183
	.62	Properties of thin plateau's figures. Films, etc. Minimum surfaces. Soap bubbles
	.63	Capillarity. Cf. 537.361
	.64	Wetting angle. Angle of contact
	.65	Free surface under the action of capillary forces. Rayleigh effect (surface tension and droplet formation)
	.66	Capillary tubes
	.68	Motions due to capillary forces, e.g. of moisture in porous bodies. Cf. 532.546
	.69	Various properties depending on surface tension
	.691	Surface activity in general. Cf. 532.615
	.692	Power of forming thin films. Oiliness. Cf. 532.62
	.694	Properties of gas-liquid systems
	.695	Behaviour in emulsion fomation. Emulsifying power

532.7 KINETIC THEORY OF LIQUIDS. OSMOSIS. SOLUTION(S) → 541.8

	.71	Osmosis. Semi-permeability
	.72	Diffusion (of liquids). Cf. 533.15
	.73	Solution and solubility. Kinetics of solution → 541.8
	.731	Rate of solution
	.733	Influence of dissolved substances on solubility
	.74	Molecular state, association and structure → 539.19/.2; 541.6
	.77	Physical properties of solutions. Influences on boiling and freezing points and on vapour pression. Cryoscopic constants. Concentration, etc.
+	.771	Dilute solutions
+	.773	Concentrated solutions

532.78 Crystallisation (of liquids and from solutions)
→ 536.421.4; 548.5

.781 Crystallisation of pure liquids

.782 Metastable, undercooled liquids. Solid solutions

.783 Anisotropic liquids. Liquid crystals

.785 Crystallisation from solutions

.787 Supersaturated solutions

533 GAS MECHANICS (AND PHYSICS). AEROMECHANICS. PLASMA PHYSICS

Information on fluids (liquids + gases) → 532

533.1 PROPERTIES OF GASES

.11 Specific volume of gases

.12 Density of gases
→ 531.758

.13 Archimedes' principle applied to gases:
correction of weight, upthrust. Cf. 532.3

.15 Diffusion, penetration, inflow of gases. Graham's law. Cf.533.73

.16 Internal friction and viscosity of gases

.17 Outflow of gases

533.2 Pressure, elasticity, compressibility. Gas laws.
Liquefaction. Gas mixtures
→ 533.7

.21 Compressibility of gases

.22 Gas laws (for perfect or ideal gas). Boyle's (Mariotte's) law.
Charles's law

.23 Deviations from gas laws. Limit of Boyle's (Mariotte's) law.
Pouillet, Dulong, Arago, Regnault experiments. Cf. 533.75

.24 Liquefaction and solidification. Liquid air
→ 621.59; 62-404/-405; 66.078; 661.9-404/-405

.27 Gas mixtures: properties. Partial pressure. Hygrometry.
Katharometry. Cf. 543.27

+ .273 Partial pressures: Dalton's law

+ .275 Humidity. Hygrometry. Psychrometric charts. Cf. 543.275

+ .276 Katharometry (for thermal conductivity of gases)

	533.5	Vacuum physics. Rarefied gases → 531.788; 621.52
+	.08	Measurement details, instruments, indicators & 53.08, e.g.
+	.081	Units, e.g. Torr
	.51/.57	Rarefaction by mechanical means, air or vacuum pumps
	.51	Mechanical air pumps. Oil pumps
	.52	Mercury (air) pumps
	.54	Water-jet (air) pumps
	.55	Vapour-jet pumps. Mercury vapour-jet pumps
	.56	Molecular (air) pumps. Diffusion (air) pumps
	.57	Air-pump batteries, combinations and control
	.58	Rarefaction by physical and chemical means. Cf. 621.528
	.581	Use of low temperatures, liquid air. Cf. 536.48
	.582	Ion pumps
	.583	Use of absorbing and adsorbing materials: charcoal, silica gel, etc
	.585	Use of purely chemical means. Reducing agents
	.587	Clean-up
	.59	Experiments in vacuum. Vacuum plant, installation
	533.6	AERODYNAMICS → 532.5 (Fluid dynamics generally) → 629.7 (Air space vehicles)
	533.6.01	Aerodynamic principles and theory
	.011	Motion of, and in, gases and air. Flow
	.1	Dimensional analysis of flow. Constants
+	.12	Reynolds number. Scale effect
	.3	Subsonic and transonic flow
+	.32	Subsonic flow without compressibility (below M 0,8)
+	.34	Subsonic flow with compressibility (M 0.8 to 1.0)
+	.35	Transonic flow, at sonic velocities (M 0.8 to 1.3)
	.5	Flow at supersonic velocities (M 1.0 to 4.99)
+	.55	Flow at hypersonic velocities (M 5 and over)
	.6	Heat transfer phenomena of moving bodies and gases. Aerothermochemistry
	.7	Compressibility and its effects. Shockwaves → 533.951; 534.222
	.8	Superaerodynamics. Flow in rarefied gases. Non-equilibrium flow, dissociation and recombination effects

533.6.013 Dynamics (theory) of air-and space-craft
.12 Aerodynamic drag
.13 Lift. Normal force
+ .14 Lateral force, side force
.15 Moments: pitching, rolling, yawing, hinge
.16 Thrust
.2 Unsteady motion
.3 Steady motion
.4 Stability. Cross-coupling
+ .42 Aeroelasticity. Flutter. Damping. Divergence
+ .43 Buffetting
+ .47 Aircraft response
.6 Conditions of flight
+ .62 Blind flying
+ .64 Diving. Climbing
+ .65 Manoeuvring. Aerobatics
+ .66 Stalling
+ .68 Non-powered flight
.7 Spinning
.8 Acceleration stresses. Vg-tests. Gust loads
.015 Performance: speed, altitude, duration, range
+ .1 Take-off. Ascent
+ .2 Landing. Descent
+ .3 Speed. Rate of ascent and descent
+ .51 Low altitude flight
+ .53 High altitude flight
+ .7 Duration and range
.04 Aerofoil design and dimensions. Airflow variables ≐ 533.69.04
.05 Observations. Operational testing and recording
→ 629.7.01
.055 Model testing, pilotless testing

	533.6.07	Ground testing techniques and equipment
	.071	Wind tunnels: design, construction, equipment. Spinning tunnels. Shock tubes
	.072	Models. Simulators. Analogies
	.074	Water tanks. Water tunnels
+	.075	Whirling arms. Spinning towers
+	.076	Electrolytic tanks (for potential flow problems)
+	.078	Ballistic test ranges. High-speed railways
	.08	Flow and flight measurement. Anemometry ≙ 53.08 and → 532.57; 551.508.5; 629.7.058
	533.61	Theory of lighter-than-air machines (generally). Aerostats
	.62	Theory of free balloons: hot-air, Montgolfier, etc.
	.63	Theory of captive balloons
	.64	Theory of dirigible balloons or airships
	533.65	Theory of heavier-than-air machines (generally). Aerodynes
	.652	Land planes: monoplanes, biplanes, etc.
+	.5	All-wing aircraft
+	.6	VTOL. STOL. Convertiplanes. Tilt-wing aircraft
	.655	Seaplanes: float and boat seaplanes
	.657	Amphibious aircraft
	.66	Theory of other (heavier-than-air) machines and parts
	.661	Rotorcraft, helicopters, autogyros. Cf. 533.664
	.662	Airscrews, propellers, fans, rotors
+	.2	Propellers, propulsion airscrews
+	.6	Lifting airscrews
	.664	Ornithopters and similar moving-wing aircraft. Cf. 533.661
	.665	Missiles and rockets (aerodynamic theory)
	.666	Non powered: parachutes. Kites. Gliders
+	.68	Aerodynamic studies, incl. interference problems, of bodies moving on or near the ground, decks or water. Cf.533.695

	533.69	Aerodynamic studies of aircraft elements. Aerofoils
+	.01	Aerofoil theory and principles. ≐ 533.6.01
	.04	Aerofoil design and dimensions. Airflow variables
	.041	Aspect ratio. Span-chord ratio
	.043	Chord line, etc. Camber. Taper and twist
	.044	Thickness distribution
	.045	Dihedral. Cf. 533.693
	.046	Surface conditions; unevenness, etc.
	.047	Fineness ratio and other aerofoil characteristics
	.048	Airflow variables. Wakes. Slipstream. Gust loads
	.692	Wing sections (diamond, flat, wedge, etc.)
	.693	Complete wings. Planforms (delta, ring, etc.)
	.694	High-lift devices. Controls and control surfaces
	.695	Components in combination. Interference problems. Cf. 533.68
	.696	Bodies: spheres, cylinders, etc. Use (A/Z)
	.697	Internal aerodynamics: intakes, ducts, nozzles, etc.
	533.7	KINETIC THEORY OF GASES. CONTINUITY OF STATE → 532.7; 536.7; 539.1/.2; 541.2
	.72	Kinetic phenomena. Brownian movement
	.73	Kinetic energy of gases. Mean molecular velocity. Mean molecular energy. Thermal diffusion. Cf. 533.15; 536.78
	.74	Avogadro's number or constant: determination
	.75	Continuity of transition and of state. Van der Waals' equation and corrections. Cf. 533.23; 539.196
	.77	Kinetic theory of the equilibrium of phases → 541.12
	533.9	PLASMA PHYSICS → 538.4; 621.039.61
+	.0	Theory, laws, plasma study, etc.≐ 53.0, e.g.
+	.03	Formation and production of plasmas → 523.03; 537.5; 551.594
+	.07	Apparatus for production and study of plasma phenomena. Analogue equipment, models, etc.
+	.08	Measurements. Diagnostics

+	533.9..1	Plasma (and waves) according to state (added to 533.92/.98)
+	...12	Electron state
+	...13	Ion state
+	...15	Low-temperature plasmas
+	...16	High-teneperature plasmas
	.92	Plasma reactions, incl. atomic cross-sections, reaction rates. Plasma interaction with charged particles. Matter, etc.
	.93	Statistical behaviour of plasmas. Plasma transport. Plasma velocity distribution
	.95	Plasma dynamics. Plasma and schock waves, etc.
+	.951	Plasma waves, shock waves. Cf. 533.6.011.7
+	.952	Pinch effect
	.98	Plasmoids
	534	ACOUSTICS. SOUND. MECHANICAL VIBRATIONS GENERALLY → 535-1/-3; 538.56; 681.8
	-13	in gases, in air
	-14	in fluids, in water
	-16	in solids
	-6	Subsonic or infrasonic vibrations (ultra long)
	-7	Audible (sound) waves
	-8	Supersonic or ultrasonic vibrations (ultra short)
+	.0	Theory, laws, production, effects, study. ≙ 53.0
	.01	Theory of vibrations
	.011	Transverse waves
	.012	Longitudinal waves
	.013	Torsion waves
+	.014	Oscillations of a mass-point: free or forced
+	.015	Coupling of systems of oscillating points
+	.03	Production and origin of vibrations → 534.1/.2
+	.04	Effects: physical, chemical, biological → 534.7/.8
	.08	Measurement: principles, methods, instruments → 53.08, e.g.
+	.087	Recording, registration: optical, electrical, etc.
+	.09	External factors, influences: humidity, etc. ≙ 53.09

534.1 Vibration of bodies. Excitation

.11 Vibration of linear bodies: strings, rods, e.g. tuning forks; air columns, pipes, etc.

.12 Vibration of flat two-dimensional bodies: plates, sheets, membranes, bells, etc.

.13 Vibration of cubic three-dimensional bodies: blocks, quartz vibrators, etc.

.14 Methods of exciting vibrations

.141 Mechanical methods: plucking, striking, bowing, blowing

.142 Thermal methods: thermophone; singing arcs, sparks, etc.

.143 Electrical and magnetic methods

.17 Various factors influencing vibrations. Doppler effect, principle of shift. Cf. 538.567

534.2 Propagation, transmission of vibrations, of sound. Processes in the acoustic field

.21 Propagation of vibrations, of sound

.22 Velocity of vibrations, of sound

+ .221 Uniform propagation

+ .222 Non-uniform propagation. Explosion waves. Sonic booms → 533.6.011.7

.23 Transmission of vibrations through acoustic field

.231 Acoustic or vibration field. Impedance, etc. Cf. 534.64

.232 Vibration generators. Acoustic radiators. Vibrators

.24 Reflection of waves. Echo. Resonance phenomena

.25 Refraction of waves

.26 Diffraction of waves

.27 Polarisation of waves

.28 Physical effects of waves. Damping. Absorption. Cf. 534.62; 534.833.53

+ .286 Acoustic or sound absorption: factor, unit (Sabin)

.29 Physical effects of vibrations → 541.12.03; 612.014.45; 615.837; 66.084

	534.3	Musical sounds. Tones. Characteristic vibrations → 681.8; 781
	.31	Objective cause of the sensation of sound. Characteristic vibrations of bodies
	.32	Quality of sound. Tones. Notes
	.321	Pitch. Frequency of vibrations. Cf.534.63
	.1	Limits of perception. Audible sound
+	.2	Intervals: octaves, fifths, thirds, etc.
	.3	Musical scales: natural and tempered
+	.4	Overtones, harmonies. Undertones, subharmonics
	.5	Harmony (chords): assonance, dissonance. Cf. 781.4
	.7	Absolute pitch. Concert pitch. Tuning forks
	.8	Infra-or subsonic vibrations (but → 534-6)
	.9	Ultra-sonic vibrations (but → 534-8)
	.322	Timbre. Amplitude of vibrations. Noises
	.323	Intensity. Subjective sensation. Cf. 534.61
	534.4	Analysis and synthesis of vibrations. Sound analysis. Resonance methods
	.41	Qualitative analysis, e.g. resonators, stroboscopy
	.42	Synthesis of tones
	.44	Quantitative sound analysis. Fourier series
+	.441	Oscillographic records. Harmonic analysers
+	.442	Electrical methods. Resonance. Filters
	534.5	Compounding or combination of vibrations
	.51	Compounding of parallel vibrations. Interference. Beats. Stationary waves
+	.511	in the same direction. Beats. Progressive waves
+	.512	in opposite directions. Stationary waves
	.52	Compounding of non-parallel vibrations. Lissajous figures

	534.6	Acoustical measurements
	.08	Measurement principles, methods, instruments. ≙ 53.08, e.g.
+	.087.2	Subjective recording. Stroboscopy, etc.
+	.087.5	Photographic recording
	.61	Intensity, pressure, level, amplitude measurement
	.62	Total energy of sound sources. Sound absorption chambers. Cf. 534.28
	.63	Frequency. Measurement. Cf. 534.321
	.64	Acoustic impedance measurement, e.g.by echo sounder or seismograph → 550.34.038
	534.7	Physiological and medical acoustics Cf. 612.85
	.75	Hearing: physical phenomena, theories
	.76	Stereo-acoustic hearing. Stereoaudition
	.77	Acuity and deffects of hearing. Hearing aids
	.78	Speech sounds. Production of speech. Cf. 801.4
	.79	Loudness. Concept of loudness
	534.8	Applications of acoustics (principles) → 681.8 (Technology)
	.83	Noise or unwanted vibrations: abatement, etc. → 628.517; 699.844
	.831	Nuisance, fatiguing effect of noise and vibrations
	.832	Prevention of noise at the source
	.833	Abatement, reduction of noise or vibration
+	.52	Transmitted sounds (air, body)
	.53	Reflected sounds. Sound absorption. Cf. 534.28
	.835	Noise in buildings, dwellings, offices, works
	.836	External noise. Traffic noise
	.838	Vibrations (infra- or ultra-sonic) in buildings
	.84	Architectural acoustics (rooms or spaces). Cf. 72.01
+	.842	General rquirements of halls and auditoria
+	.843	Acoustics of rooms: echo, reverberation, etc.

	534.85	Sound recording and reproducing acoustics → 681.84/.85
	.851	Mechanical recording: defects, disk properties
	.852	Magnetic recording: defects, tape properties
	.853	Optical recording: defects, etc.
	.86	Sound transmission (film, radio, TV). Electroacoustics → 621.37/.39; 654.19
+	.861	Broadcasting studio technique, enunciation
+	.862	Sound film acoustics → 778.534
	.87	Signal acoustics. Range. Directional properties → 654.92
	.88	Sound-ranging. Direction-finding, etc. → 534.24; 681.88
	535	OPTICS. LIGHT → 534; 537.53; 538.56; 539.1; 628.9; 77
	-1/-3	Radiation, rays according to wavelengths
	-1	Long waves. Infra red, etc.
	-11	Very long waves (over about 10000 m)
+	-12	Radio (Hertzian) wavelengths
+	-14	Wavelengths between radio and infra-red
	-15	Infra-red rays
	-2	Visible light. Colours. Hues Saturation and brightness by 4th figure after -211/-287 ...1 Pure, strongly saturated. Bright, brilliant... ...2 Moderately white saturated, ...3 Moderately black saturated, ...4 Strongly white saturated. Pale... ...5 Grey-toned. Dull. (Browns under -224, -233) ...6 Strongly black staurated. Dark...
+	-201	Colourless (transparent bodies)
+	-202	White .1 Pure standard .5 Warm
+	-203	Grey. Colour-tinted grey
+	-204	Black .1 Perfect black

	535-21	Red colour group		
+	-211	Bluish red, magenta, carmine	.4 Rose, pink	
+	-213	Deep red. Crimson		
+	-215	Cinnabar red. Vermilion		
+	-217	Yellowish red, yellowish-pink		
	-22	Orange colour group		
+	-221	Reddish orange		
+	-224	Orange. Pure orange	.5 Brown	
+	-227	Yellowish orange		
	-23	Yellow colour group		
+	-231	Reddish yellow. Golden yellow		
+	-233	Yellow, pure yellow and cream		
+	-236	Greenish-yellow		
+	-238	Yellow-green		
	-24	Green colour group		
+	-241	Yellowish green. Leaf-green		
+	-243	Green, pure green		
+	-247	Bluish green. Sea-green		
+	-255	Blue-green		
	-26	Blue colour group		
+	-261	Greenish blue. Ice blue	.2 Turquoise	
+	-263	Blue: pure, ultramarine	.4 Sky-blue, azure	
+	-275	Indigo (blue)		
	-28	Violet colour group		
+	-281	Bluish violet		
+	-282	Violet		
+	-283	Bluish purple, red-violet		
	-285	Purple		
+	-287	Reddish purple		
x	-29/-293	(White, grey, black); 1966 → 535-20...		x
	-3	Short waves. Ultra-violet, etc.		
	-31	Ultra-violet rays		
+	-32	Wavelengths between ultra-violet and X-rays		
+	-34	X-rays, Röntgen rays. Cf. 537.531		
+	-36	Gamma-rays. Cf. 539.166		

	535-4	Polarised light
	-92	Reflected light
	-94	Refracted light
+	.0	Nature, laws, production, study, etc. ≙ 53.0
+	.012	Optical isotropy and anisotropy
+	.1	Isotropy
+	.2	Anisotropy
+	.07	Optical benches and accessories → 535.8
+	.08	Measurement principles, methods, instruments ≙ 53.08 and 535.8
	535.1	THEORY OF LIGHT
	.11	Emission theory (of light, etc.)
	.12	Wave theory (of light, etc.): wavelength, frequency
	.13	Electromagnetic theory (of light, etc.) → 538.3/.56
	.14	Quantum theory (of light). Photons → 530.145; 539.122
	535.2	LIGHT RADIATION. RADIANT ENERGY. PHOTOMETRY
	535.21	Effects (of light) radiation
	.211	Thermal effects
	.212	Luminous effects
	.214	Mechanical effects. Radiation pressure. Radiometry. Photophoresis
	.215	Electrical effects. Photo-electric phenomena. Boundary layer effect → 537.312.5; 621.383
	.217	Chemical, actinic effects → 541.14
	.218	Magnetic effects of light radiation
	535.22	Velocity of light. Methods of measurement, influencing factors
+	.225	Influence of motion on the velocity → 530.12 (Relativity)

535.23 Radiant energy and spectral distribution

.231 Total energy of radiation, including heat radiation

+ .1 Basic magnitudes: flow, density, etc.

.2 Black body radiation. Kirchoff's theory

.3 Stefan-Boltzmann law of radiation

.4 Radiation from non-black bodies

.5 Black body temperature

.6 Total radiation measurement (by aselective receivers). Bolometry. Cf. 535.243

.232/.237 Spectral distribution of energy

.232 General considerations

.1 Spectral density

.6 Properties of radiation receivers

.233 Wien's law. Relation of temperature to spectral distribution. Colour temperature

.234 Planck's formula

.235 Formulae for non-black bodies

535.24 Photometry. Intensity of light

→ 523.035.2; 771.534.5

.241 Units. Constants. Measurement principles

.1 General principles of photometry: light modulation, diminution of intensity

.3 Standard lamps and candles. Candela. Cf. 535.241.4

.4 Fundamental magnitudes. Constants. Definitions

.41 Luminous flux

.42 Luminous intensity. Luminance

+ .43 Density of (luminous) flux

.44 Brightness

.45 Luminous output

.46 Quantity of light

.5 Ratios, relations between light and radiation mass

.6 Accessory apparatus for photometry. Ulbricht's sphere. Screens, etc.

535.242	Subjective photometry → 612.843.36
.2	Photometers
.3	Visual field: size, form, photometric contact
.5	Isochromic photometry
.6	Heterochromic photometry
.7	Photometry with dark-adapted eye
.243	Spectrophotometry → 535.651
.1	Subjective spectrophotometry
.2	Spectrophotometry, using photo-cells or -elements, thermo-elements, bolometers, etc.
.3	Photographic spectrophotometry
.4	Effect of slit width and corrections for it
.247	Objective (physical) photometry: photochemical, electrochemical, thermoelectric, photoelectric
+ .249	Determination of other photometric data
.2	Luminous efficiency determination
535.3	TRANSMISSION. ABSORPTION. EMISSION → 535.8 (Instruments)
535.31	Geometrical optics (theory). Reflection. Refraction
.311	Rectilinear propagation. Shadow
.312	Reflection. Plane mirrors
.313	Spherical, curved mirrors
.315	Refraction. Cf. 535.32
.315	Prisms
.316	Thin lenses. Astigmatic lenses. Cylindrical lenses
.317	Thick lenses. Optical systems, calculations
.2	Optical systems. Cardinal points
.22	Foci. Focal length. Refractive power
.23	Aperture, relative aperture. Limit
.24	Visual field. Image field
.25	Resolving power
.6	Theory of aberrations. Coma. Astigmatism. Distortion. Chromatic aberration
.7	Experimental determination of aberration in spherical lenses and lens systems
.9	Aspherical lenses

535.318 Refracting/reflecting and catadioptric systems
≙ 535.317

.319 Testing for optical homogeneity, parallelism of plates
→ 535.8

535.32 Refractometry. Refractive indices. Dispersion
→ 535.58; 543.45

.321 Methods of measurement
.2 Minimum deviation method
.4 Determination from angle of total reflection
.5 Immersion methods
.322 Measuring instruments
.2 Goniometers and spectrometers
.4 Refractometers
.323 Refractive indices of solids
.324 Refractive indices of liquids
.325 Refractive indices of gases
.327 Various influences of the refractive index: change of state, pressure, temeperature, flaws
.328 Dispersion indices. Abbe index
.329 Anomalous dispersion

535.33 Spectra in general. Emission spectra
→ 523.77; 523.87; 535.853; 539.163; 543.42
.331 Spectra. Emission spectra of metals
.332 Spectra of non-metals
.333 Spectra, emission spectra of compounds
.337 Various influences on spectra: pressure, temperature, electric and magnetic fields, etc.
.338 Composition of spectra: continuous, line, band. Regularities. Terms. Combination principle
+ .1 Continuous (emission) spectra
+ .3 Line spectra. Resonance lines. Doppler shift
+ .4 Band spectra. Molecular spectra
.339 Monochromatic light and its production
→ 535.622; 535.853

535.34	Absorption. Absorption spectra → 543.422
.341	Absorption coefficient. Extinction coefficient, etc.
.342	Absorption spectra, e.g. of flames, solids, liquids, gases
.343	Specific absorption spectra
.344	Emission coefficient
.345	Directed transmission of light through bodies
.1	Transparency generally. Transmission coefficient
.3	Opacity in general
.6	Light filters. Absorption and interference filters
.346	Remission (reflection) at absorbent surfaces. Reflectivity → 535.36; 535.39
.347	Dichroism. Pleochroism. Optically absorbent surfaces of anisotropic bodies. Cf. 535.392
.348	Pleochroic haloes
.349	Special absorption effects. Pseudopleochroism. Coloration
535.35	Excitation. Extinction → 537.53; 539.12...17; 539.186; 539.196
535.36	Diffusion. Scattering by random reflection → 535.43; 535.58
.361	Diffusion by turbid media
.1	Diffuse transmission
.2	Diffuse reflection. Opalescence. Lustre (in general) → 535.31; 535.44
+ .362	Diffusion-absorption complex → 535.346
535.37	Luminescence. Fluorescence, phosphorescence and their spectra. Excitation and amplification of radiation
.371	Fluorescence in general
.372	Fluorescence spectra
.373	Phosphorescence in general
.1	Phosphors and scintillators → 661.14
.2	Excitation. Theory of phosphorescence
.3	After-illumination period

	535.374	Amplification by stimulated emission of radiation (Laser, etc.) → 621.375.8
	.375	Molecular scattering (quantum effect). Raman effect → 537.531.8
	.376/.379	Special kinds of luminescence
	.376	Luminescence excited by charged particles. Electroluminescence. Radioluminescence
	.377	Thermoluminescence. Cf. 536.45
	.378	Triboluminescence. Luminescence due to friction
	.379	Chemiluminescence → 541.14
	535.39	Relations between reflection, refraction and absorption
	.391	Properties of transparent bodies. Scattered reflection → 535.361.2; 535.44
	.2	Surface reflection of transparent bodies. Vitreous up to adamantine lustre
+	.4	Fresnel reflection formula
	.5	Decreased reflection
+	.6	Increased reflection, e.g. by dielectric layers
	.392	Bodies with surface colours. Selective reflection and absorption. Colour lustre. Cf. 535.663
	.393	Metallic bodies. Metallic lustre
	.394	Total reflection
	.399	Relationship of refraction, dispersion and absorption to chemical composition. Theory of optical glasses → 541.65
	535.4	INTERFERENCE. DIFFRACTION. SCATTERING BY DIFFRACTION
	535.41	Interference. Interferometry. Cf. 543.46
	.411	Interference apparatus → 535.854
	.412	Interference fringes: visibility and localisation. Fresnel fringes. Fizeau's bands
	.413	Achromatism of interference
	.415	Colours of thin isotropic films. Newton's rings → 535.662.1
+	.416	Stationary or standing waves
	.417	Applications: resonators, etc. 535.853.4 .

535.42 Diffraction

.421 Diffraction gratings (plane waves). Normal spectrum
+ .423 Graphical method (cylindrical waves)
.428 Polarisation by diffraction
→ 535.514

535.43 Scattering by diffraction. Tyndall effect. Turbidity
→ 535.36; 543.43

535.44 Special phenomena produced by interference, diffraction and reflection in crystals and other regular structures
Cf. 535.361; 535.391; 535.662

+ .441 Asterism and similar phenomena
+ .442 Iridescence, labradorescence, adularescence
+ .443 Pearly lustre

535.5 POLARIZATION. DOUBLE REFRACTION. DISPERSION IN ANISOTROPIC B

535.51 Polarization
.511 Polarization apparatus. Polariscopes. Cf. 535.568
.512 Interference of polarised light
.513 Direction of vibrations
.514 Production of polarized light, e.g. by Nicol prism
.515 Double refraction generally. Polarization by double refracti

535.52 Optic surfaces and axes

.521 Wave surface. Single sheet surface of refraction
.522 Double-sheet surfaces of refraction
.524 Optic axes
.525 Optic axial angle
.526 Axes of single ray velocity
.527 Conical refraction

	535.54	**Chromatic polarization**
	.542	Apparatus and methods for measuring phase difference and double refraction: compensators, comparators
	.543	Interference in crystals
	.544	Measurement of crystal constants
	.545	Extinction directions, determination. Stauroscope
	.547	Irregular crystals. Fringes of crystals. Polarization in aggregates
	.548	Applications. Phase contrast method
	535.55	**Stress double refraction. Photoelasticity. Stress optics**
	535.56	**Optical activity, rotation of plane of polarization**
	.561	Properties of quartz
	.562	Circular and elliptic double refraction
	.563	Specific rotation, rotatory power and dispersion
	.566	Amorphous bodies and fluids with rotatory power, molecular roatation, optical activity
	.568	Applications of optical activity: polarimeters, saccharimeters, etc. Cf. 543.47
	535.58	**Dispersion in anisotropic bodies** → 535.32
	535.6	**COLOURS AND THEIR PROPERTIES** → 159.937.51; 612.84; 667; 75; 778.6
+	−2	Specific colours, hues, etc. ≙ 535-2
+	535.61	**Generalities on colour quality. Chromaticity, etc.**
	.611	Hue, colour tone. Colour disc. Colour indexes
	.612	Brightness, brilliance, luminous intensity
	.613	Saturation, purity (of colours)
	.616	Matching colours. Colour matches. Cf. 535.653
	.617	Two-dimensional representations. Colour triangle. Colour chart and atlas, etc.
	.618	Three-dimensional nature of colour. Vector representation. Pigments generally

535.62 Composition of colours. Colour mixing

.621 Complementary colours. Compensatory (neutralizing) and contrast colours

.622 Optimal colours. Spectral colours

.623 Additive colour mixing

.624 Subtractive colour mixing. Cf. 535.647

.625 Colour stimulation. Illumination and pigment (body) colour. Influence of light sources

  .1 Colour stimulation function. Complex colours

  .2 Natural (day)light illumination of colours

  .4 Artificial illumination of colours

  .8 Illumination to excite fluorescent colours

535.64 Colour measurement. Colour systems and theories

.641 Monochromatic systems. Ostwald's theory

.642 Dichromatic systems

.643 Trichromatic systems. Standard. Valency system

.644 Tetrachromatic systems: yellow-blue, red-green

.645 Valency systems adapted to perceptive value

.646 Measurement of colour perception. Higher, non-Euclidean colour measurement (Schrödinger)

.647 Colour systems based on subtractive mixing

.648 Goethe's and Schpenhauer's colour theories

535.65 Colour measurement: methods and apparatus

→ 543.4

.651 Spectrum methods. Valency meqsurement use of spectrophotometric values

.652 Compensation methods

.653 Matching methods. Cf. 535.616

  .8 Methods with colour charts, tables or atlases, e.g.

    :635.9 Flower colour tables or charts

.654 Brightness methods

.658 Empirical methods

535.66 Colours of visible objects and their physical generating conditions

.661 Pigment or body colours. Absorption colours without (metal) surface absorption

.1 Idiochromatic colours

.2 Allochromatic colours

.3 Colours of solid bodies

.4 Colours of liquids and solutions

.5 Colours of gases

.7 Colours of concentration series. Dilution colours

.662 Colours determined by particle structure

.1 Diffraction and interference colours. Cf. 535.44

.2 Diffusion colours. Colloidal colours. Cf. 535.36; 535.43

.663 Surface colours (with metallic absorption). Cf. 535.39

.664 Dispersion colours. Imbibition colours

.665 Coloured light (from luminous sources) → 535.233

.2 Daylight colours

.7 Luminescence colours. Cf. 535.37

.668 Technical properties of colours and pigments. Covering and colouring power. Cf. 667.612.6

535.67 Colour rendering and fidelity. Cf. 778.68

.672 Light sources viewed through eyeglasses

.674 Reproduction fidelity

535.68 Susceptibility of pigments to external influences. Colour fastness, fading, running, etc.

.682 Thermal effects on coloration. Heat fastness

.683 Radiation effects. Light fastness. Fading

.684 Susceptibility to chemical action. Chemical fastness of colours

.1 Acid fastness

.2 Alkali or base fastness

.3 Colour fastness to certain finishing processes

.4 Colour fastness to specific chemicals

.5 Sweat fastness of colours

.6 Colour fastness to solvents

.685 Colour fastness to water, dampness, boiling, etc.

.686 Colour fastness to mechanical and weather influences, e.g. to tropical climates

	535.8	APPLICATIONS. OPTICAL INSTRUMENTS Use the .08 divisions → 522; 681.2; 681.4; 771. 35
+	.08	Measurement details, instrument design, etc. ≙ 53.08
	.81	Optical instruments: theory, components, performance
	.811	Path of light or other rays
	.813	Components, structural elements
	.818	Performance, efficiency of optical instruments. Testing performance and efficiency
	535.82	Microscopy and microscopes
	.821	Simple microscope. Lenses magnifying glasses
	.822	Compound microscopes → 537.533.3
+	.3	Projection microscopes. Solar microscopes
+	.6	Polarization microscopes. Orthoscopes. Conoscopes
+	.7	Binocular microscopes
	.823	Mechanical parts (and accessories) of microscopes
	.824	Optical systems of microscopes
	.1	Eyepieces. Oculars
	.2	Objectives
	.3	Illumination devices. Light sources
	.825	Accessory equipment, e.g. for making drawings, for counting or rotating
	.826	Preparation of objects for the microscope (general)
	.827	Management of the microscope. Microscopic examination
	.828	Protective devices. Cases. Slide containers, etc.
	535.83	Eyeglasses. Binoculars. Telescopes → 522; 681.4
+	.832	Eyglasses. Spectacles, monocles
+	.833	Telescopes, more especially those for observations on the earth
+	.834	Binoculars. Opera glasses. Field glasses
	535.84	Description and results of optical examination
	.842	Macrography in general. Prism drawing apparatus for ordinary purposes. Cf. 778.312
	.843	Micrography in general. Drawing apparatus for microscopy Cf. 778.315

	535.853	Spectral apparatus: spectroscopes, spectrometers, etc. → 543.42
	.1	Theory: resolving power, light intensity
	.2	Prismatic spectral apparatus
	.21	Dispersion prosms
	.22	Spestroscopes and spectrometers
	.23	Spectrographs
	.24	Monochromators
	.26	Spestral photometry
	.27	Prismatic apparatus for producing optimal colours
	.3	Grating, spectral apparatus
	.31	Diffraction gratings. Cf. 535.42
	.32/.37	Grating spectroscopes, etc. ≙ 535.853.2, e.g.
+	.34	Concave gratings (spectrographs)
	.4	Interference spectroscopes and spectrometers. Interferometers. Cf. 535.41
	.6	Optical equipment, accessories, etc. → 535.07/.08
	.854	Interference apparatus, microscopes, refractometers, etc. → 535.41
	.86	Camera lucida. Endoscopes. Periscopes
+	.861	Camera lucida
+	.862	Periscopes
	.87	Mirrors. Reflectors → 628.946
	.88	Projection apparatus. Lanterns 778.27
	.89	Light sources for optical procedures and instruments
	536	HEAT. THERMODYNAMICS → 628.8; 697
	-1/-3	Characteristics of thermal processes
	-11	Reversible
	-12	Irreversible
	-33	Constant temperature, isothermal
	-34	Constant energy, adiabatic, isoentropic
	-35	Polytropic
	-36	Constant pressure, isobaric
	-37	Constant volume, isochoric, isometric, isosteric, isopyknic, etc.

+	536.0	Theory, laws, production, study. ≙ 53.0, e.g.
+	.02	General laws, empirical formulae
	.08	Measurement: units, methods, instruments ≙ 53.08
	536.1	General theory of heat. Nature of heat
	.11	Basic concepts of heat theory
	.12	Temperature distribution in bodies
	.13	Heat potential
	.14	Heat quantity
	536.2	Heat transfer and exchange. Conduction. Convection → 536.33 (Radiation)
	.01	Theory and nature of heat conduction
+	.02	General laws of conduction. Absolute and relative conductivity
	.022	Thermal conductivity. Heat conductivity
	.21	Heat conduction (in solids). Heat insulating power
	.22	Heat conduction in liquids, incl. molten metals
	.23	Heat conduction in gases → 533.2
	.24	Heat exchange, transfer between media
	.241	Solid-solid heat exchange
	.242	Solid-fluid and fluid-solid heat transfer
	.243	Liquid-solid-liquid heat exchange
	.244	Gas-solid heat exchange
	.245	Gas-solid-gas heat exchange
	.246	Gas-solid-liquid heat exchange
	.247	Fluid-fluid heat exchange
+	.248	Heat exchange or transfer involving more than three layers, or accompanied by change of state
	.25	Convection
	.251	in solids
	.252	in liquids
	.253	in gases
	.255	in heterogenous systems
	.27	Current and countercurrent in heat-exchange apparatus

536.3 **Effect of bodies on heat and heat radiation**

:535.312 Reflection of heat radiation

:535.314 Refraction of heat radiation

:535.34 Absorption of heat radiation

.33 Heat radiation: heating and cooling effects
→ 535.231, esp. 535.231.6 (Bolometry)

.332 Cooling by radiation. Cooling curves

.35 Diathermancy, heat transmission properties

.37 Various thermal effects of physical origin

536.4 **Action of heat on volume and structure of bodies. Change of state, etc.**

.41 Change of volume (due to temperature). Expansion. Contraction

.411 Expansion and contraction of gases

.412 Expansion and contraction of liquids

.413 Expansion and contraction of solids

.416 Combined volume changes due to temperature.
Bursting, shrinking, shrivelling, etc.

536.42 **Change of state, [illegible] structural transformations due to heating or cooling**
→ 536.71; 539.2

.421 Solid-to-liquid transformation (and reverse)

.1 Solid-to-liquid: liquefaction, fusion, melting. Melting point

.2 Flow-commencement. Softening point

.3 Drop-formation. Drop or drip point

.4 Liquid-to-solid: solidification, freezing. Freezing point
Cf. 532.78

.5 Sintering

.422 Solid-to-gas transformation (and reverse). Sublimation

.1 Solid-to-gas vaporization

.4 Gas-to-solid: solidification. Condensation

.423 Liquid-to-gas transformation (and reverse)

.1 Liquid-to-gas. Boiling. Boiling point. Vaporization.
Volatility. Superheating

.4 Gas-to-liquid: liquefaction. Condensation. Dew point

.424 Allotropic transformations: solid-solid, liquid-liquid
→ 541.7

.425 Phase transformations in heterogenous bodies
→ 539.2

	536.44	Critical points. Critical temperatures
	.45	High temperature phenomena and production. Incandescence Cf. 535.37; 542.49
	.46	Combustion and other heat raetions. Flames and their properties. Flammability, etc.
+	.468	Combustibility and (in)flammability → 541.427; 543.87
	.48	Low temperature phenomena and production
+	.483	Very low temperatures. Cryogenics → 533.581; 621.59
	.49	Various effects of heat on bodies. Heat accumulation ,resistance, etc.
	536.5	Temperature: measurement and control. Thermometry
	.081	Temperature units and scales
	536.51	Thermometry and thermometers
	.511	Gas thermometers
	.512	Mercury thermometers
	.513	Other thermometers based on liquid expansion, e.g. Six's thermometer
	.514	Vapour-pressure thermometers
	.516	Thermometers based on expansion of a solid, e.g. bimetallic strip thermometers
	.52	Pyrometry and pyrometers (in general)
	.521	Optical and radiation pyrometers
+	.2	Heat radiation pyrometers
+	.3	Optical pyrometers (using light rays)
	.522	Methods based on change of state. Fusion cones. Seger cones
	.53	Electrical thermometry (and pyrometry) → 537.32
	.531	Resistance thermometers
	.532	Thermo-elements. Thermocouples. Thermopiles → 535.516; 537.324
	.54	Calorimetric methods of thermometry
	.55	Other methods, e.g. by the flow of a gas
	536.58	Temperature control. Thermoregulation. Maintenance of constant temperature
	.581	Thermostats
	.582	Thermoregulation based on expansion
	.584	Thermoregulation by freezing mixtures or boiling liquids
	.587	Electrical thermoregulation

536.6 Heat quantity measurement. Calorimetry

.081	Thermal units, constants: B.T.U., calories
.62	Calorimetry and calorimeters (generally)
.621	Calorimetry by mixture. Simple (heat) calorimeters
.622	Ice calorimetry. Bunsen ice caloremeter
.623	Vaporization calorimetry and calorimeters
.624	Condensation calorimetry and calorimeters
.626	Combustion calorimetry. Bomb calorimeters
.627	Calorimetry with material heated electrically
.628	Experimental methods of overcoming heat loss
.629.7	Measurement of heat flow
.63	Specific heat. Heat cpacity
.631	of solids
.632	of liquids
.633	of gases and vapours
.65	Latent heats and other physical heat values
.651	of expansion
.652	of fusion
.653	of solution, of dilution
.654	of sublimation
.655	of vaporization
.656	of allotropic transformation
.657	Heat of dissociation
.658	Heat of adsorption
.66	Heat of reaction and formation, of combustion, hydration and other chemical reactions → 541.115
.68	Estimation of heat requirements for heating spaces, solid masses → 697.1

536.7 Thermodynamics. Heat energy

.71	Change of state. Equations of state → 536.42
.711	Adiabatic change of state
.712	Isothermal change of state

	536.713	Constant-pressure change of state
	.714	Constant-volume change of state
	.715	Other change-of-state conditions
	.717	Cycles. Change-of-state and heat diagrams
	.72	First law of thermodynamics. Equivalence of forms of energy. Law of conservation of energy
	.721	Mechanical equivalent of heat. Joule's equivalent
	.722	Energy forms: internal, external. Enthalpy or heat content
	.725	Perpetual motion of the first kind
	.73	Second law of thermodynamics (entropy of closed system increases with time)
	.735	Perpetual motion of the second kind
	.74	Thermodynamic temperature
	.75	Entropy. Irreversible processes. Statistical thermodynamics
+	.751	of perfect gases
+	.752	of ordinary gases and gas mixtures
+	.753	of liquids and mixed phases
+	.754	of systems at non-uniform temperature
+	.755	of irreversible processes. Degradation of energy
+	.756	of closed systems in contact
+	.757	of open systems
+	.758	Statistical thermodynamics. Entropy and probability
	.76	Relations deduced from the two laws of thermodynamics. Phase transformations
	.763	Clausius-Clapeyron equation. Phase transformations of the first order
	.764	Phase transformations of higher order
	.765	Maxwell's laws
	.77	Free energy. Thermodynamic potential
	.773	Le Chatelier principle (Van't Hoff-le Chatelier-Braun)
	.775	Gibbs-Helmholtz principle and equation. Phase rule. Degrees of freedom
	.777	Thermodynamic activity
	.78	Joule's law of energy of gases. Joule-Thompson or Joule-Kelvin effect → 533.22/.23
	.791	Third law of thermodynamics. Nernst heat theorem. Degenerate gases. Perpetual motion of third kind. Unattainability of absolute zero temperature

	537	**ELECTRICITY** → 621.3
+	.081	Electrical units and constants
	537.1	**Theory of electricity** → 539.1
	.11	Fundamental concepts
	.12	Negative electricity. Cf. 537.533; 539.124
	.13	Positive electricity. Cf. 537.534; 539.124.6; 539.125.4
	537.2	**Electrostatics. Electric charges, etc.** → 621.319
	.21	Generalities: field, potential, attraction
	.212	Electric field. Lines and tubes of force
	.213	Electric potential and potential field
	.214	Quantity of electricity. Electrical energy
	.217	Attraction and repulsion (electrical)
	.22	Electrification (electricity production), distribution, accumulation
	.221	Electrification by contact or friction of bodies. Sources of electricity
	.222	Distribution of electric charges. Density. Electrostatic pressure
	.223	Electrostatic machines, generators (e.g. Wimshurst)
	.224	Capacitors or condensers. Leyden jars, etc.
	.226	Dielectrics: strength, constants. Ferroelectricity → 621.315.6
+	.3	Dielectric losses, dielectric hysteresis. Cf.537.521;537.529
	.227	Pyro-electricity. Cf. 537.32
	.228	Various effects of an electric field
	.1	Piezoelectricity
	.2	Electrical expansion and contraction. Electrostriction
	.3	Electrical double refraction
	.4	Kerr effect (electrostatic). Johnson-Rabeck effect
	.5	Stark effect
	.24	Special cases. Charge on small particles
	.27	Other influences on electric fields
	.29	Other effects of electric fields

537.3	Electric current. Electrokinematics → 583.3; 541.13
.31	Transmission or conduction of electricity
.311	Electrical conductivity, resistance, insulation
.1	Nature of conduction. Theories of electron motion in conductors
.2	Ohm's law
.3	Resistance and conductivity of substances
.33	of anisotropic solid non-metals. Semi-conductors. Rectification by semi-conductors → 621.315.59; 621.382
.4	Contact resistance. Intermediate resistance
.5	Current distribution in conductors. Effect of shape
.6	Resistance to alternating currents. Inductance. Impedance. Vector. Diagrams
.7	Very weak currents
.8	Overload and its phenomena
.312	Influences of conductivity and resistance
.5	Influence of light and radiation on conductivity
.6	Influence of temperature on conductivity
.62	Supra-conductivity at low temperatures
.67	Discontinuity of resistance due to change of state, e. at melting point
.7	Influence of electric field
.8	Influence of magnetic field
.9	Effect of bending, torsion and other mechanical stresses
.313	Current circuits. Kirchhoff's laws
.314	Velocity of propagation of currents
.315	Potential: distribution, etc. Excess voltage
.32	Thermoelectricity → 536.53; 537.227
.321	Generalities. Production of heat by currents. Joule's law
.322	Seebeck, Peltier, Thompson, Benedicks and similar effects
.323	Thermoelectric constants of substances
.324	Thermoelements. Thermoelectric currents → 536.532; 621.362

	537.36	Electrokinematics
	.361	Electro-capillarity
	.362	Electro-endosmosis
	.363	Electrophoresis. Cataphoresis. Anaphoresis → 543.25; 543.54
	.37	Influences on electric currents, except electrodynamic and electromagnetic
	.39	Effects of electric currents, except electrodynamic and electromagnetic
	537.5	Electrical discharges and radiations
	.52	Electrical discharges (in general)
	.521	Generalities. Losses. Discharge potential
	.523	Discharge in gases at normal pressure. Arc discharges
	.525	Discharge in rarefied gases. Glow discharges
	.1	Positive column. Plasma properties
	.6	Electronic discharges
	.8	Luminous and dark spaces
	.527	Discharge in compressed gases
	.528	Discharge in liquids. Sparking
	.529	Discharge in solids
	.53	Discharge rays and radiation phenomena → 539.12; 539.16
	.531	X-rays. Non-corpuscular rays (discharge phenomena). X-rays and gamma-rays considered together → 535-36; 621.386
+	.04	Effects of X-rays on properties of materials
	.7	Effects on X-rays
	.8	Scattering of X-rays (and photons). Compton effect → 535.375
	.533	Negative rays. Cathode rays. Electron optics → 537.12; 539.12; 539.165
	.1	Velocity of the particles
	.2	Emission of rays. Electron beams. Electron guns
	.3	Electron optics: lenses, mirrors, etc. Electron microscopy Cf. 621.385.833
	.7	Effects on negative (cathode) rays. Passage of electrons through matter
	.8	Secondary radiations due to electron bombardment. Secondary emission

	537.534	Positive rays. Anode rays. Canal rays → 537.13; 539.128.4; 539.164
	.1	Charge on a particle. Velocity
	.3	Ion optics, field ion, proton microscopy
	.7	Effects on positive rays. Ion absorption, etc.
	.8	Secondary radiations due to positive ray bombardment. Secondary emission
	537.54	Theory of electric discharge. Apparatus, tubes, etc. → 621.385
	.56	Ionisation of gases: potentials, form, mobility of ions → 541.132
+	.561	Ions. Resonance potential
+	.564	Causes of ionisation. Townsend coefficient
+	.565	Mobility of ions in gases
+	.568	Reactions, recombination of ions
+	.569	De-ionisation of gases
	.57	Ionisation of non-electrolytic liquids and of solids
+	.571	Non-electrolytic liquids
+	.572	Solids
	.58	Thermionics. Thermo-ionisation. Thermionic emission
	.591	Cosmic rays
+	.1	Nature and constitution
+	.15	Cosmic ray showers and bursts
+	.8	Secondary radiations produced by cosmic rays
	537.7	**Electrical measurements** Main place → 621.317
	.71	Electrical units
	.72	Measurement of various magnitudes
	.74	Electrical measuring instruments ≙ 621.317.7 (if desired)
	.79	Results of measurement. Constants

538 MAGNETISM. ELECTROMAGNETISM

	.08	Measurement: methods, instruments. ≙ 53.08

538.1 Theory of magnetism

	.11	Laws of magnetic action. Coercive force
+	.113	Theory of diamagnetism and paramagnetism
+	.114	Theory of ferromagnetism. Magnetization curves
+	.116	Theory of ferrimagnetism
	.12	Magnetic field. Potential. Field intensity
+	.122	Magnetic fields. Lines of force. Magnetic shells
	.13	Distribution of magnetism

538.2 Magnetic processes and properties. Magnetization

.21	Generalities about magnetic properties
.212	Reluctance
.213	Permeability
.214	Susceptibility → 530.152.2
.22	Magnetic properties of materials → 621.318.1
.221	Ferromagnetic materials
.222	Paramagnetic materials
.224	Diamagnetic materials
.23	Hysteresis. Hysteresis losses and other energy losses in magnetic fields → 530.152.1
.24	Magnetization and demagnetization
.242	Magnetization by mechanical influences. Gyromagnetic effect
.243	Magnetization by contact
.244	Magnetization by electric current. Solenoids. Electromagnets Cf. 621.318.3
.245	Ferromagnetic materials (in particular), crystals
.247	Demagnetization
.248	Residual magnetism
.26	Magnetic circuit
.27	Various influences on permeability

538.3 Electromagnetism. Electrodynamics. Maxwell's theory

→ 537.3; 530.145

.31 Reciprocal action of currents and magnets

.32 Mutual interaction of currents. Rotation, etc.

538.4 Magnetohydrodynamics (MHD)

→ 533.9

538.5 Induction. Variable currents

.51 General laws. Theory

.52 Induction and mutual induction

.521 Induction

.522 Mutual induction

.523 Induction by the Earth's magnetic field

.527 Spark induction

.53 Self-induction

.54 Induction in non-rectilinear conductors. Eddy currents. Current displacement

.55 Alternating currents

.551 Alternating-current circuits

.1 Theory. Representation. Vector diagrams

.2 Special cases. Current branching. Oscillatory circuits, etc.

.4 Power. Effective and reactive power. Phase. Losses. Efficiency

.5 Current. Potential

.6 Frequency. Slip

.552 Polyphase currents. Rotating field

.56 Electromagnetic oscillations or waves. Hertzian waves
→ 535; 621.37; 621.396

.029 Types of oscillations or waves. Frequency range
≙ 621.3.029 and → 535-1/-3

.561 Production of electromagnetic waves

.563 Reception, detection of electromagnetic waves

.565 Details of oscillating circuits. Damping. Coupling. Decoupling

.566 Propagation of electromagnetic waves
→ 550.388

.567 Influences on electromagnetic waves. Rectification. Amplification. Modulation. Heterodyne

.569 Effects of electromagnetic waves. Conductor losses. Dielectric losses

	538.6	Effects of, and influences on, magnetic fields
	.61	Optical effects of magnetic fields. Double refraction. Polarization. Zeeman effect
	.63	Electrical effects of magnetic fields. Hall effect. Corbino effect
	.65	Mechanical effects of, and on, magnetism
	.652	Magnetostriction. Volume change by magnetization
	.653	Mechanical influence of magnetization
	.66	Thermal effects of, and on, magnetism
	.662	Dependence of magnetization on temperature. Curie point
	.663	Pyromagnetism
	.665	Magnetocaloric effect
	.67	Other influences on magnetic fields
	.69	Other effects of magnetic fields, e.g. trajectories of charged particles in magnetic fields
	538.7	Terrestrial magnetism
		→ 525.24; 550.38 (Geophysics)
	.71	Measurement of constants
	.711	Intensity of the Earth's field
	.712	Declination. Magnetic declination, variation
	.713	Inclination or dip. Magnetic dip
	.74	Compasses. Magnetic compasses : regulation, compensation
	539	PHYSICAL NATURE AND STRUCTURE OF MATTER
+	.0	Theory, production, effects, use and study of phenomena ≙ 53.0,e.g.
+	.01	Theoretical consideration
+	.03	Sources, laboratory production
+	.04	Effects of phenomena
+	.06	Utilization, applications
+	.07	Apparatus for study of phenomena
+	.08	Measurement: units, principles, methods, etc.
+	.09	Dependence on various physical influences

539.1 NUCLEAR, ATOMIC AND MOLECULAR PHYSICS

→ 537.1; 537.5; 621.039

+	.0		Theory, laboratory production, effects, use and study of phenomena. ≙ 53.0 and 539.0, e.g.
+	.01		Theoretical aspects. Cf. 530.14
+	.04		Effects. Irradiation effects
+	.043		Physical effects
+	.044		Chemical and photochemical effects
+	.047		Biological and physiological effects
+	.06		Utilization, applications. Cf. 621.039
+	.07		Apparatus (and instruments) for production and study of nuclear and atomic phenomena. Cf. 539.1.08
	.073		Apparatus for visualization of particle tracks. Cloud, bubble and luminescence chambers
	.074		Particle counters and detectors
		.2	Gas ionisation counters. Geiger-Müller counters. Spark counters
		.3	Scintillation counters
		.4	Čerenkov (Cherenkov) counters
		.5	Solid-state ionization counters. Crystal counters. Semiconductor counters
		.6	Electron-multiplier counters
		.7	4 π counters
		.8	Uncharged-particle counters and detectors. Neutron counters Fast-neutron detectors
	.075		Electronic circuit devices for nuclear physics Divide by :621.37...
	.076		High-energy particle producers for nuclear physics → 621.039.5; 621.384.6
	.078		Special apparatus for study of particular phenomena of nuclear, atomic and molecular physics
	.08		Measurement: units, principles, methods, instruments. ≙ 53.08
	.09		Dependence of nuclear phenomena on various physical influences. ≙ 53.09

539.12 **Elementary and simple particles (charge < 3)**

→ 539.16

In addition to the .0 numbers from 539.1, the following series 1... may be used with 539.12 or any of its direct decimal divisions 539.122 onwards, e.g.

539.12.14 (or 539.121.4) Particle spin and moments
539.125.5.162 (or 539.125.516.2) Neutron energy desigantions

...1 Particle characteristics, properties, behaviour
12 Mass. Charge. Specific charge

13 Decay. Q-value. Lifetime
14 Spin and moments. 143 Magnetic moment
16 Energy 162 Designation 164 Spectra
17 Interactions 172 Scattering 173 Absorption
18 Beams: energy spectrum, polarisation

.122 Photons (incl. gamma rays)
→ 535.14; 537.531; 539.166

.123 Neutrinos

.6 Anti-neutrinos

.124 Electrons, negatrons (incl. beta particles)
→ 537.12; 537.533; 539.165

.6 Positrons

.125 Nucleons (protons and neutrons)

.4 Protons

.46 Anti-protons

.5 Neutrons

.52 Neutron transport. Neutron flux distribution

+ .523 Transport equation and methods of solution

+ .525 Transport and diffusion parameters (of neutrons)

.56 Anti-neutrons

.126 Mesons (and hyperons)

.3 Light mesons

.33 μ -mesons (Mu-mesons or muons)

.34 π -mesons (Pi-mesons or pions)

.4 Heavy mesons (K-mesons)

.6 Hyperons

.128 Simple particles (atomic no. or charge less than 3)
→ 539.14

.2 Deuterons (H^2)

.3 Tritons (H^3)

.4 Alpha particles (He^4)
→ 539.164

.53 Helium 3 (He^3)

.55 Helium 5 (He^5)

539.14 **Nuclei**

→ 539.128

.141 Nuclear forces. Exchange forces. Neutron-proton interaction. Two-body problem. Many-body problem

.142 Nuclear models: individual (shell), collective

.143 Properties of nuclei (in the ground state). Cf. 539.144

.2 Masses of the nuclei. Mass defects

.3 Binding energies

.4 Spin and moments. Dipole, etc. Parity

.5 Size of the nucleus. Charge and charge distribution. Polarization

.144 Nuclei in the excited state. Cf. 539.143; 539.17

.3 Energy levels

.4 Spin and moments

.6 Half-life. Lifetimes. Transition probability

.7 Isomers
→ 541.62

539.16 **Radioactivity. Radioactive decay**

+ .04 Associated phenomena and effects

+ .08 Measurement: units, principles, etc.

.162 Statistical nature of radioactive decay. Radioactive series

.163 Radionuclides and their characteristics. Decay schemes. Half-life. Energy spectrum. Branching ratio
Specify elements by :546...

.164 Alpha-radioactivity and decay

+ .2 Theory of alpha decay

+ .3 Alpha-radioactive characteristics of nuclides

.165 Beta-radioactivity and decay
→ 539.124

+ .2 Theory of beta decay

+ .3 Beta-radioactive characteristics of nuclides

+ .4 Electron capture. K-capture. L-capture

+ .8 Recoil radiations. Neutrino emission

.166 Gamma-radioactivity
→ 539.122

+ .2 Theory of gamma emission

+ .3 Gamma-radioactive characteristics of nuclides

+ .169 Radioactivity other than alpha, beta or gamma types
→ 539.173.7/.8

	539.17	Nuclear reactions. Nuclear data in general, incl. fission, fusion, chain reactions → 621.039
+	.01	Theory: excitation, resonance, etc.
+	.02	Cross-sections, e.g. 539.171.02 (Scattering).
	.171	Scattering, elastic and inelastic. Polarisation
+	.016	Elastic scattering
+	.017	Inelastic scattering
+	.018	Polarisation of scattered particles
+	.11	Nucleon-nucleon scattering
+	.12/.6	Scattering of other specified particles ≙ 539.172.12/.6
	.172	Individual nuclear reactions (except fission)
		Further divide 539.172.1/.6 for product particle by adding the subdivisions of 539.172.8, e.g. 539.172.13.812 Deuteron-induced reactions producing protons
	.1	Reactions induced by nuclei (incl. stripping reaction)
+	.12	Proton-induced reactions
+	.13	Deuteron-induced reactions
+	.14	Triton-induced reactions
+	.15	Helium 3 induced reactions
+	.16	Alpha-particle induced reactions
+	.17	Induced by other nuclei
	.2	Electron-induced reactions
	.3	Photon-induced reactions
	.4	Neutron-induced reactions
	.5	Meson- and hyperon-induced reactions
	.6	Reactions induced by other particles
	.8	Products. Nuclear reactions according to product (irrespective of inducing) particles.
	.81/.86	Specific product particles. ≙ 539.172.1/.6, e.g.
+	.813	Deuteron-producing reactions
+	.84	Neutron-producing reactions

	539.173	Fission ≙ 539.172
+	.1/.6	Fission according to inducing agents. ≙ 539.172.1/.6
+	.7	Spontaneous fission
	.8	Products of fission: fragments, yields Specify by :546...
+	.84	Neutrons from fission. Neutron emission
	.175	Chain reactions. Cyclic reactions
+	.2	Chain reacting fission
+	.3	Chain reacting fusion
+	.4	Cyclic nuclear reactions
	539.18	Physics of single atoms → 535.338; 541.2
	.182	General theory. Wave functions and methods of solution. Atomic models
	.183	Properties of atoms
	.2	Atomic mass. Isotopes → 621.384.8
	.3	Electron configuration. Electron shells
	.4	Spin and moments
	.5	Size. Dimensions. Radii
	.184	Internal mechanics. Atomic structure
+	.2	Energy levels and structure. Isotope shift
+	.5	Excited states. Doubly excited. Auger effect
	.186	Excitation and interaction of atoms. Atomic collisions. Interatomic forces
+	.2	Interactions with elementary particles. ≙ 539.12
+	.3	Interactions with other atoms. Interatomic forces
	.188	Atomic beams and rays (or class with 539.198)
	.189	Analogous systems. Mesic atoms. Positronium

539.19 Physics of single molecules
→ 535.338

.192 General theory. Wave functions and methods of solution

.193 General properties. Configuration and geometry.
Bond lengths and angles. Moments, etc.
→ 541.24

.194 Internal mechanics. Energy relations. Vibration and rotation.
Electronic levels. Bonds, resonance energies and potentials.
Nuclear coupling. Polarisability. Cf. 535.33/.34

.196 Interactions. Excitation and dissociation of molecules

+ .2 Interactions with atoms

+ .3 Interactions with other molecules. Intermolecular forces.
Van der Waals forces. Cf. 533.75

+ .5 Excitation of molecules

+ .6 Dissociation of molecules. Dissociation energies

.198 Molecular beams and rays. Cf. 539.188

.199 Macromolecules

539.2 PROPERTIES AND STRUCTURE OF MOLECULAR SYSTEMS.
SOLID STATE PHYSICS (IN GENERAL)

Lattice energy and defects. Solid solutions.
Transitions in solids, etc.
→ 537.311.33; 541.18; 541.6; 548

539.21 Properties of molecular systems

.211 Surfaces. Surface texture. Fracture surfaces.
Plane, conchoidal, oblique and woody fracture

.213 Amorphism. Amorphous, vitreous state. Theory (Beilby, etc.)

+ .2 Properties of the vitreous state. Ageing, etc.

.214 Plasticity. Ductility. Plastometry. Cf. 539.373

.215 Properties of fine particles, powders and granular materials.
Pulverulence. Interspaces . ~~Friability~~ Specific surface.
Friability. Particle size and fineness. Colloidal distribution.
Coagulability. Homogeneity, etc.

.216 Vesicular, fibrous, laminary and radiating structure.
Schistosity

+ .1 Fibrous structure. Fibres. Filaments

+ .2 Films. Skins

.217 Porosity. Permeability
→ 532.546; 532.71; 533.15

.218 Compactness. Freedom from pores
→ 531.755

539.219 Other properties

.1 Heterogeneity. Impurities. Inclusions

.2 Relation between internal stress and heterogeneity. Flaws, fissures, cracks, splits, cuts, notches. Irregularities and discontinuities. Cf. 539.319

.3 Diffusion. Self.diffusion
→ 532.72; 533.15

539.22 Isotropy and anisotropy from standpoint of structure of molecular systems. Order-disorder

Texture of materials, esp. synthetics
→ 548.735; 552.122; 620.18

.23 Films, thin films and their formation
→ 541.183

539.24/.27 Microstructure(s) and properties of molecular systems revealed by specific techniques. Cf. 620.18

.24 Microstructure(s) revealed by photomicrography
→ 620.186; 778.315

.25 Properties and structure revealed by ultramicroscopy
→ 535.43/.44; 535.822

.26 Properties adn structure revealed by X-ray examination
→ 548.73; 620.170.15; 620.183.6

.27 Microstructure(s) revealed by electron microscopy
→ 537.533.3; 620.187; 778.317

539.3 MECHANICAL PROPERTIES OF (ELASTIC) SOLIDS. ELASTICITY, DEFORMATION, ETC.
→ 620.1, esp. 620.17

539.31 General theory of ~~[illegible]~~ elasticity and stress. Elastic forces, potential and limit. Hooke's law

+ .311 Elastic equilibrium conditions (elastostatics)

+ .312 Elastic movement conditions (elastokinematics)

.319 Internal stresses due to technical operations, mode of use, etc. Distribution of stresses. Stresses due to shrinkage. Cf. 539.219.2

539.32 Elastic moduli. Stress/strain ratios. Variation of moduli under different conditions (temperature, pressure, etc.)

For elongation, compression, flexure, torsion moduli → 539.38 or use :539.38...

539.37 Theory of deformation. Deformation in general

Plane and volume deformation. Deformability → 620.17; 621.7.011

.371 Temporary or elastic deformation. Spontaneously reversible deformation

.372 Deformation not spontaneously reversible

.373 Permanent, irreversible deformation. Deformation of hardenable materials

.374 Plastic and viscous deformation. Properties of solids not malleable at normal temperatures. Flow

.375 Limit of deformation. Deformation at breaking

- .5 Deformation at breaking
- .6 Wear and fatigue (general). Cf.539.388.1;539.53;620.178

.376 Deformation under constant load. Creep → 539.434 (Creep strength)

.377 Influence of temperature on deformation, e.g. by annealing and quenching. Cf. 539.54

.378 Other types of deformation

- .2 Welding by compression. Cf. 621.791.1
- .3 Interpenetration of solids by compression. Cf. 548.526
- .6 Disintegration. Dispersion

.379 Effects of deformation

- + .2 Volume (bulk) increase, decrease, etc.
- + .4 Slip lines. Slip planes. Gliding planes

539.38 Deformations according to cause and change of shape. Graphic representation. Cf.539.32(Moduli); 620.17(Tests)

.381 Homogenous and non-homogenous deformations

.382 Extension, tensile deformation. Elongation. Load-extension curves, etc.

.383 Compression or bulk deformation

.384 Bending deformation. Flexure

.385 Torsion deformation. Twisting. Warping

.386 Shearing and tearing. Shear

.387 Folding deformation. Creasing and winding

539.388	Other causes of deformation
.1	Fatigue deformation. Cf. 539.375.6
.2	Deformation by various working processes
.22	by wire-drawing and rolling
.23	by rolling and unrolling
.24	by stamping, deep-drawing, boring, etc.
.25	by hammering and forging
.8	Shrinking and swelling due to moisture content
.389	Phenomena associated with deformation of solids
.1	Yield point. Cf. 539.31
.2	Hardening. Strengthening. Bauschinger effect. Cf. 539.54
.3	After-effects. Ageing. Accommodation. Relaxation
.4	Hysteresis
539.4	STRENGTH. RESISTANCE TO STRESS → 620.1, esp. 620.17
.01	Theory of resistance. Various influences Cf. 539.31; 539.375; 539.61
.011	Theory of resistance to stress. Cohesion. Extension. Breaking limit, etc.
.012	Theory of design. Strain. Permissible stresses
.013	Influence of shape on strength. Form factor. Notches. Corners. Constrictions
.014	Influences on strength. Stress distribution, internal or residual stresses
.015	Influence of structure, microstructure and surface condition on strength
.016	Influence of working: cold, hot, heat treatment → 621.7/.9; 621.785
.019	Various influences, e.g. time, rate of deformation, size, shape, etc.
539.41	Resistance to elastic deformation. Cohesion strength
.411	Compression strength. Resistance to compression
.412	Tensile strength. Resistance to tension. Cf. 539.42
.413	Bending (flexural) strength. Resistance to flexion
.414	Torsion strength. Resistance to torsion
.415	Shear and tearing strength. Resistance to shear
.416	Resistance to folding, creasing, winding
.417	Resistance to drawing and rolling
.419	Resistance to combined stresses. Impact strength. Shock resistance, etc.

	539.42	Breaking. Failure or fracture of materials. Cf.539.412; 539.4
+	.428	Fracture. Fracture structure
+	.424	Fracture strength. Ultimate strength (tenacity)
	539.43	Resistance to repeated stress. Fatigue → 539.375.6; 620.178.3
	.431	Alternating stresses: resistance, fatigue
	.432	Resistance to complex stresses, e.g. in shafts
	.433	Resistance to vibration or oscillations
	.434	Resistance to normal load, temperature and time influences, e.g. to cold flow, to ageing. Creep [illegible] strength → 539.37; 539.388/.389
	.435	Initial strength
	539.5	PROPERTIES OF MATERIALS INFLUENCING DEFORMABILITY → 532.13; 539.214; 621.7.011
	.51	Malleability: forgeability, weldability, etc.
	.52	Ductility
	.53	Hardness and softness. Wear resistance → 539.375.6; 539.389.2
+	.531	Hardness
+	.532	Scale of hardness
+	.533	Resistance to penetration
+	.536	Surface hardness
+	.537	Resistance to impact
+	.538	Resistance to wear, to abrasion
	.54	Hardenability
	.55	Toughness, tenacity and flexibility
+	.551	Toughness or tenacity
+	.554	Cleavability, splittability (e.g. of wood)
+	.557	Flexibility. Pliability
	.56	Brittleness. Fragility. Crushability. Friability

	539.57	Consistency, flow and spread properties
+	.571	Consistency, flow properties in general
+	.573	Brush applicability
+	.574	Sprayability
+	.575	Spread properties. Spreadability
	.58	Compressibility of solids
	539.6	INTERMOLECULAR FORCES AND ASSOCIATED PHENOMENA
	.61	Cohesion. Adhesion
+	.611	Cohesion. Cf. 539.4.011
+	.612	Adhesion
	.62	Friction → 531.43
+	.621	Sliding friction
+	.622	Rolling friction
	.63	Impact physics
	.67	Internal friction → 532.13; 534.28
	539.8	OTHER PHYSICO-MECHANICAL EFFECTS. Cf. 53.09
	.87	Mechanical effects of physical phenomena
	.89	Effects of mechanical processes, pressure, etc.
	.893	Production of very high pressure

54 CHEMISTRY. MINERALOGICAL SCIENCES

→ 66

	54:001.4	Chemical nomenclature and terminology
	54:003.62	Chemical symbols
	54-1	State of a substance
	-11	State with respect to occurence and treatment
	-112	Natural, native, raw, untreated
	-114	Synthetic, artificial. Prepared
	-116	Processed, treated, converted
	-12	State in relation to atomic and molecular structure
+	-121	Elementary
	-123	Atomic
	-124	Molecular
	-126	Polymerised
	-127	Polycondensed
+	-128	Ionic, ionized
	-13	Gaseous state
	-138	Colloidal state in the gaseous phase. Aerosol
	-139	Fluid state (above the critical point)
	-14	Liquid state
+	-143	Molten state
+	-144	Mesomorphic, paracrystalline state
	-145	in solution (aqueous, alcoholic, etc.)
	-148	Colloidal state in the liquid phase: sol, suspension, emulsion, gel, foam
	-149	Coarse suspension
	-16	Solid state
	-161	Amorphous state
	-162	Crystalline state
	-165	Solid solution (homogenous solid phase)
	-168	Colloidal state in the solid phase

	54-18	Special states with respect to properties
	-182	Colloidal state (generally) → 54-128, -138, -148 and 541.182
	-183	Adsorbed state → 541.183
	-185	Mixtures
	-188	Activated state
	-19	Alloys (generally) → 54-165; 54-185
	54-3	Types of compounds
	-31	Oxides
	-32	Acids
	-323	Meta-acids
	-324	Pyro-acids
	-325	Ortho-acids
	-36	Bases. Hydroxides
	-38	Salts or analogous compounds
	-381	Basic salts
	-383	Neutral salts
	-384	Acid salts
	.1	Primary acid salts
	.2	Secondary acid salts
	.3	Tertiary acid salts
	-386	Double salts. Complex compounds
	-39	Peroxy compounds. Peroxides
	54-4	Chemicals. Reagents, etc.
	-41	Reagents (generally)
	-42	Standard solutions
	-43	Indicators
	-44	Catalysts
	-45	Buffers and buffer solutions
	-48	Degrees of purity of chemicals
+	-481	Analytical quality (pro analysi)
+	-485	Crude

54.01/.09	Occurrence, properties, preparation, etc.
	Special auxiliaries applicable throughout 54, especially under 546 and 547, and further developed for particular divisions
.01	Occurrence. Varieties. Phases
.02	Composition. Structure. Isotopes
.03	Physical properties and constants
.04	Chemical properties, constants and reactions
.05	Isolation. Purification. Impurities. Cf. 543.05
.06	Analysis. Determination of constituents. Cf. 543.06
.07	Preparation. Synthesis. Cf. 542
.08	Units. Formulae. Symbols. Measurements. ≙ 53.08, e.g.
+ .081	Formulae. Symbols
+ .083	Measurement methods
.084	Measuring apparatus. Instrumentation
.09	Uses. Application
541	GENERAL, THEORETICAL AND PHYSICAL CHEMISTRY
541.1	PHYSICAL CHEMISTRY
541.11	Thermochemistry. Chemical thermodynamics
.113	Molecular heats. Atomic heats. Dulong & Petit law
.115	Exothermic and endothermic reactions (generally). Heat of reaction in general
.117	Low-temperature chemistry → 536.48
.118	High-temperature chemistry → 536.45
541.12	Chemical mechanics
	→ ~~536, esp. 536.77~~ 533.7; 536, esp. 536.77
.01	State of the phases. Phase rule
.011	Single-phase systems: solid, liquid, gaseous
.012	Two-phase systems
.013	Three-phase systems. Triple point

541.12.014	Four-phase systems. Quadruple point
.015	Systems of more than four phases
.017	Systems, whose curves have maxima, minima or other peculiarities. Eutectics. Dystectics. Peritectics
.03	Physical properties and constants. Mechanical and physical effects
.121	Chemical statics and equilibrium in general
.122	Equilibrium of homogenous chemical systems
.123	Equilibrium of heterogenous chemical systems
.012.5	Mixing and separation of liquids
.1	One-component systems
.11	Water diagrams
.2	Binary systems
.3	Ternary systems (in general)
.4	Ternary systems with one component divided between two liquid phases. Partition coefficient. Nernst's law
.5	Systems of pairs of reciprocal ~~slats~~ salts. Exchanges
.52	Hydrogen exchange
.53	Hydroxyl exchange
.54	Base exchange
.6	Quaternary systems
.7	Hetrogenous systems with more than four components
.81	Hygroscopicity
.124	Chemical dynamics or kinetics and reaction mechanisms in general
.2	Start of a reaction. Initial action
.7	Coupled and chain reactions. Activation. Dissociation. Ionisation → 539.17
.125	Reaction limits
.126	Spontaneous reactions. Explosions. Zones of reaction → 662.21
.2	Ignition velocity. Delayed ignition
.4	Limits of reaction and of explosion

+	541.127	Velocity of reaction. Reaction constants
+	.2	Concentration and reaction velocity. Law of mass action (Guldberg & Waage)
+	.3	Temperature and reaction velocity. Van't Hoff's law
+	.4	Reaction equilibrium
	.128	Catalysis. Reaction acceleration ~~by catalysis~~ and retardation by catalysis Cf. 54-44; 541.145; 542.97; 66.097
+	.1	Accelerating action. Positive catalysis
+	.2	Autocatalysis
+	.4	Retarding action. Negative catalysis
	541.13	Electrochemistry. Electrolysis
	.131	Generalities. Faraday's laws
	.132	Electrolytic dissociation. Ions. Cf. 537.56
	.3	Hydrogen ion concentration (pH). Cf. 543.257.1
+	.4	Buffer effect. Electrolytic dissociation. Cf. 54-45
	.133	Conductivity, resistance of electrolytes. Ion transport and velocity
	.134	Electromotive force and potential series
	.135	Electrolytes. Electrolysis. Polarisation → 542.8; 543.251
	.1	Pure liquid electrolytes and electrolysis
	.2	Electrolysis of solutions. Cf. 532.7; 541.8
x	.3	Electrolysis of molten salts and oxides
	.4	Electrolytic phenomena in solids
	.5	Electrodes and diaphragms
	.52	Metal electrodes
	.53	Glass electrodes
	.6	Electrolytic polarization. Polarization current
	.8	Other effects on electrolysis, e.g. light, temperature, magnetic fields
	.136	Voltaic cells. Batteries and accumulators → 621.35
	.138	Electrochemical reactions
	.139	Action of magnetic field on chemical reactions. Magnetochemistry

	541.14	**Photochemistry** → 535.217; 535.37; 77.01
	.141	Generalities: Basic theories. Reaction velocity. Threshold value. Excitation of molecules and atoms. Actinometry
	.143	Specifically photochemical reversible reaction. Photochemical equilibrium
	.144	Specifically photochemical irrevefsible reactions. Photosynthesis. Photodecomposition. Cf. 581.132
+	.145	Influence of light on non-specifically photochemical reactions. Photocatalysis → 541.128
	.146	Photochemical after-effects. Perrin's theory
	.147	Sensitivity. Sensitisation. Sensitometry → 771.534
+	.148	Various effects: photovoltaic, photoelectric
	541.15	**Radiation chemistry. Chemical effects of radiation (other than light) upon substances** . Cf. 541.28
	541.17	**Topochemistry (regional reactions)**
	541.18	**Colloid chemistry. Absorption chemistry. Capillary chemistry** → 537.361; 54-18; 661.18
	.02	Composition. Structure
	.025	Thixotropy
	.04	Chemical properties and constants. Coagulation. Flocculation. Separation of phases
	.041	Phenomena involving altered degree of dispersion. Flocculation. Coalescence. Rhythmic precipitation. Liesegang phenomenon. Coacervation
	.043	Mechanical separation of phases: by centrifuging, shaking, sedimentation → 621.928
	.044	Separation of phases by action of heat
	.045	Separation of phases by increased concentration: ultra-filtration, evaporation, ~~dess~~ desiccation

541.18.046	Coagulation by electrolytes and ultramicrons
.047	Coagulation by other physical processes: optical, electrical, magnetic
.048	Coagulation by chemical agents
.049	Coagulation by means of biological processes
.05	Preparation. Dispersion. Peptisation. Emulsification
.051	Dispersion mechanism: peptisation, emulsification, decoacervation
.052	Dispersion by simple mixture with the medium
.053	Dispersion by mechanical action
.054	Dispersion by heat, by thermal means
.055	Dispersion by dialysis
.056	Dispersion by electrolysis
.057	Dispersion by other physical means
.058	Dispersion by chemical agents
.059	Dispersion by means of biological processes
541.182	Disperse systems. True colloidal systems
.2/.3	Systems with gaseous dispersion medium. Aerosols
.2	Liquid disperse phase. Mists
.3	Solid disperse phase. Smokes, dusts
.4/.6	Systems with liquid dispersion medium. Sols
.41	Liquid disperse phase. Emulsions
.45	Gaseous disperse phase. Foams
.6	Solid disperse phase. Colloidal solutions
+ .64	Lyophil colloids (sols and gels)
.642	Sols
.644	Gels
.65	Lyophobe colloids. Suspensoids
.8	Systems with solid dispersion medium
.82	Solid disperse phase. Solid sols
.83	Liquid disperse phase. Liquid inclusions
.84	Gaseous disperse phase. Solid colloid foams

	541.183	Contact systems. Adsorption. Surface chemistry
	.12	Ion exchanges. Cf. 66.086; 661.183.12
+	.123.2	Cation exchanges
+	.3	Anion exchange
	.2	Adsorption mechanism
	.3	Adsorption by liquids generally and by isotropic liquids in particular
	.4	Adsorption by anisotropic liquids
	.5	Adsorption by solids. Chemisorption
	.6	Mixed systems. Adsorption by ultramicrons
	.7	Electroadsorption
	541.2	ATOMIC THEORY → 530.14; 539.18
	.21	Generalities . Chemical properties of bodies in relation to their mass
	.22	Stoichiometry. Laws of definite proportions, equivalent proportions, gaseous volumes (Gay-Lussac). Chemical equivalents
	.23	Atomic weight and its determination (by .08)
	.24	Molecular ~~wt~~ weight and its determination (by .08)
	.25	Atomic volume and molecular volume. Space chemistry. Interatomic distances
	.26	Other relations between physical constants and atomic weights. Parachor
	.27	Chemical properties and atomic structure. Quantum chemistry. Cf. 541.5; 541.6
	.28	Radiochemistry. Chemistry of the radionuclides. Dependance of chemical properties of radioactive atoms on nuclear changes. Nuclear chemistry → 541.15; 546.79
	541.4	CHEMICAL COMPOUNDS, NATURE AND TYPES → 54-3
	.41	Chemical combination generally. Nature of compounds. Difference between compounds and mixtures → 541.12
+	.412	Intermetallic phases. Daltonic and Berthollic phases

	541.42	Reactive and unreactive substances
	.427	Substances according to reactivity and flammability
	.2	Oxidisable substances in general
	.32	Inflammable substances
	.33	Inflammable substances whose vapours ignite above room temperature
	.4	Easily inflammable substances igniting at room temperature
	.5	Spontaneously inflammable, pyrophoric substances
	.6	Explosive substances, compounds or mixtures
	.7	Corrosive or caustic substances
+	.8	Substances reacting easily with other substances
	.428	Inert, unreactive and slightly reactive susbtances
	.43	Free elements
	.44	Hydrides, hydracids. Cf. 541.452
	.45	Oxides, acids and bases (generally)
	.451	Oxides in general. Cf. 54-31
	.452	Acids in general. Cf. 54-32
+	.1	Monobasic acids
+	.2	Dibasic acids
+	.3	Tribasic acids
+	.9	Polybasic acids
+	.454	Bases (in general)
+	.456	Neutral oxides
+	.457	Amphoteric oxides
+	.459	Peroxides. Cf. 54-359
	.48	Salts. Cf. 54-38
+	.481	Basic salts
+	.483	Normal salts
+	.484	Acid salts
+	.486	Complex salts. Double salts
	.49	Complex compounds. Complex chemistry. Complexones → 54-386

	541.5	VALENCY. AFFINITY. BONDS (LINKAGES)
	.51	Generalities on affinity. Valency from standpoint of atomic structure and periodic system. Cf. 541.27
+	.515	Free radicals
	.52	Constant valency
+	.53	Variable valency(of the same element)
	.54	Auxiliary. Werner, coordination valencies
	.57	Bonds. Linkages. Bond strength
	.571	Primary, homopolar & covalent bonds. Covalency
+	.1	Single bonds
+	.3	Double bonds
+	.4	Triple and multiple bonds
+	.8	Semipolar bonds. Dative covalency
	.572	Secondary, dipole and resonance bonds. Van der Waals forces
+	.5	Co-ordination bonds. Chelate bonds
	.573	Ionogenic bonds. Electrovalency
	.574	Metallic bonds
	541.6	CHEMICAL STRUCTURE IN RELATION TO PROPERTIES OF SUBSTANCES → 539.2
	.61	Structural formulae (generally). Chains. Rings
	.62	Chemical isomerism. Tautomerism. Mesomerism → 541.7; ~~542.95~~ 542.952.1; 66.095.21
+	.621	Isomerism in general. Structural isomerism
+	.623	Tautomerism. Desmotropism for chromo-isomerism
+	.624	Mesomerism
	.63	Stereochemistry (in general)
+	.632	Optical stereoisomerism
+	.634	Cis-trans isomerism
	.64	Macromolecular chemistry. Polymerisation, polycondensation and polyaddition products → 542.952; 66.095.2; 678
	.65	Optical properties, in relation to structure → 535
+	.651	Chromogenic groups, batho-, hypso-, vario-, halo-chromism. Chromo-isomerism
+	.653	Rotatory properties and structure. Mutarotation, etc.
	.66	Thermal properties in relation to structures. Phase changes, etc. Cf. 536.42

541.67 Electrical and magnetic properties
in relation to chemical structure

.68 Mechanical properties in relation to
chemical structure

.69 Physiological properties and chemical structure.
Taste, smell, odoriphoric, aromatophoric groups
→ 543.92

541.7 ALLOTROPY. PHYSICAL ISOMERISM

Various crystal forms of a substance.
Polymorphism, etc.
→ 535.56; 536.424; 541.162; 548.33

+ .72 Enantiotropy

+ .73 Monotropy

541.8 SOLUTIONS AND SOLUBILITY IN GENERAL
→ 532.6/.7; 541.12/.13

541.9 CLASSIFICATION OF ELEMENTS AND COMPOUNDS,
e.g. ~~(Mendeleev)~~ periodic table (Mendeleev)

542 PRACTICAL, EXPERIMENTAL, PREPARATIVE CHEMISTRY.
LABORATORY EQUIPMENT AND TECHNIQUE
→ 543; 546/547; 66.0

542.1 Chemical laboratories: fittings, layout, etc.
→ ~~725~~ 727.5 (Laboratory buildings, architecture)

+ .12 Laboratory benches

+ .19 Fume cupboards

542.2 Laboratory apparatus and technique in general

.21 Arrangement and setting up of apparatus

.22 Preparation of substances: ~~pestles & mortars, etc.~~
Crushing, washing, etc. Spatulas, ladles.
~~Spatulas, ladles~~ Pestles & mortars, etc.

.23 Laboratory vessels. Tubes, stirrers, etc.
~~Laboratory glass- and quartz-ware~~
~~→ 666.17~~

.231 Bottles. Flasks. Beakers. Dishes. Funnels. Test-tubes.
Stirrers, etc. Laboratory glass- and quartz-ware
→ 666.17

.232 Porcelain, refractory vessels. Stoneware vessels
→ 666.5/.7

.233 Metal vessels

	542.24/.29	Accessory apparatus
	.24	Stands. Tripods. Tongs and holders
	.25	Stoppers: glass, cork, rubber, etc.
	.26	Tubing. Jointing, sealing materials. Cements → 621.643; 666.96
	.297.3	Closure devices. Stopcocks, etc. → 621.646
	542.3	Weight, volume, density determination. Balances and weights. Graduated, calibrated vessels. Pipettes. Measuring cylinders. Burettes, etc. → 531.73/.75; 681.2
	542.4	Heating and cooling: apparatus, techniques → 66.04
	.41	Furnaces. Ovens. Heating generally
	.42	Gas heating. Gas ovens and burners. Bunsen burners
	.43	Spirit or oil heating. Special burners
	.44	Electrical~~ly~~ heating. Electric furnaces or ovens
	.45	Indirect heating. Water, steam and sand baths, etc.
+	.46	Thermal processes and apparatus. ≙ 66.046, e.g.
+	.463	Cooling processes. Cf. 536.48; 621.56/.59
+	.464	Chemical heating processes
+	.468	Heating under pressure. Autoclaves
	.47	Drying. Desiccation. Drying apparatus ≙ 66.047
	.48	Distillation. Vaporization. Concentration. Distilling apparatus. ≙ 66.048
	.49	Other thermal processes, e.g. for phase separation. Partial fusion. Sublimation, etc. ≙ 66.049
	542.5	Use of flame and blowpipe
	.51	Flame: oxidising and reducing flames
	.53	Blowpipes

542.6 Operations with water and liquids.

Solution. Filtration. Washing, etc.

→ 542.93; 66.06

.61 Solution and solvents, digestion, extraction at ordinary temperatures. Extraction apparatus. Maceration

.63 Diffusion. Stirring

.64 Dialysis and dialyser

.65 Solidification. Precipitation. Crystallisation. Salting out

.66 Decantation. Decanting funnels. Siphons

.67 Filtration. Filters and filter-presses. Porous media. Bleaching

.68 Presses

.69 Washing. Wash bottles

542.7 Operations with gases. ≙ 66.07, e.g.

.71 Production of gases. Kipp's apparatus

.73 Collection and transference of gases

.74 Washing, solution of gases. Washing flasks. Woulfe bottles. Drying of gases. Gas drying and absorption apparatus

.76 Storing of gases. Gas contatiners

.77 Rarefaction of gases. Water and mercury pumps. Manometers. Vacuum regulators
→ 533.5; 621.52

.78 Compression of gases. Airtight tubes and flasks. Blowers. Compressors, etc.

.79 Liquefaction and solidification of gases

542.8 Physical and physicochemical operations(not in 542.2/.7)

≙ 66.08, e.g.

+ .85 Irradiation. Photochemical operations

+ .87 Electrical and electrochemical operations. Electrolysis, electrodes, etc. Cf. 543.25

542.9 Special chemical processes. ≙ 66.09, e.g.

+ .91 Synthetic processes generally

+ .92 Destruction. Decomposition. Cracking, etc.

+ .93 Reactions involving treatment with water. Hydration. Dehydration. Hydrolysis

+ .94 Various processes, incl. acidification, neutralisation

+ .941 Reduction. Hydrogenation

+ .943 Oxidation

+ .944 Halogenation and dehalogenation

+ .95 Organic chemical operations. Acylation. Esterification, etc.

+ .952 Isomerisation. Polymerisation

+ .953 Condensation

+ .957 Organometallic compound reactions. Grignard reaction

+ .958 Nitrogen group introduction and removal

+ .97 Catalysis & catalysts. Cf. 541.128

543 ANALYTICAL CHEMISTRY

a) Denote material analysed and constituent(s) by colon here or (for specific techniques) to the relevant 543..division, e.g.

543:637.127 Analysis of milk
:669.14 Analysis of steel
:546.28 Silicon constituent of steel
543.242:546.135-32 Oxidation/reduction determination of $HClO_3$

b) Optionally, to denote material analysed and constituent (without reference to specific analytical techniques) omit 543 and combine the two relevant numbers, adding .06 to the 546... number, e.g.

637.127:547.458.2.06 Milk analysis: lactose constituent
669.14 :546.28.06 Steel analysis: sislicon constituent

+ 543-1 State of material under analysis. ≙ 54-1

+ 543-4 Reagents, standard solutions, indicators ≙ 54-4

543.05 Sampling and preparation (for analysis)

.052 Sampling procedure: selection of sampling points, errors, etc. Cf. 519.2
.053 Technique of taking or collecting samples. Sampling tubes, bottles, vessels
.055 Sample preparation by dry means, grinding etc.
.056 Sample preparation by wet means: dissolving, etc.

543.06 Procedure. Types of analysis and determination

.061 Qualitative analysis. Detection. Identification
.062 Quantitative analysis . Estimation
.063 Microanalysis and semi-microanalysis (for very small amounts of material analysed)
.064 Trace analysis. Detection and estimation of impurities

543.08 Measurement: principles, methods, apparatus. Instrumental analysis
≙ 53.08

543.2 SPECIAL CHEMICAL METHODS OF ANALYSIS AND ASSAY

543.21 Wet separation and assay. Gravimetric analysis

.211/.215 Cations: metals of groups I, II, III, IV, V
.217 Anions: acid groups; HCl, HNO_3, H_2SO_4, etc.
.219 Spot tests

543.22 Dry separation and assay. Cupellation, bead, blowpipe

+ .221 Cupellation reactions
.224 Bead reactions. Bead tests
.225 Blowpipe analysis
.226 Thermal analysis
+ .227 Thermobalance (thermogravimetric) analysis

543.24 **Volumetric analysis. Titration methods**

+ .08 Measurement. Instruments. Burettes, etc.

.241 Alkalimetry ~~nad~~ and acidimetry

.242 Oxidation and reduction methods: chloro, bromo and iodometry; permanganate & dichromate titrations

.243 Precipitation with silver salts, e.g. $AgNO_3$

.244 Precipitation with cyanide or other salts

+ .6 Complexometric titration. Chelatometric methods

543.25 **Electroanalysis. Electrolytic & electrometric techniques.** → 537.363; 543.545; 621.3.035

.251 Electrolytic precipitation → 541.135; 621.3.035.2

.252 Electrolytic gas liberation & measurement

.253 Polarographic analysis. Cf. 543.257.5

.257 Electrometric analysis, titrations

- .1 Potentiometric analysis. Determination of pH-value → 541.132.3
- .2 Standard electrodes: quinhydrone, calomel, hydrogen, oxygen, glass, etc. → 541.135.5; 542.8; 621.3.035.2
- .3 Electrical circuit details. Cf. 621.3.049
- .5 Amperometric analysis. Conductometric analysis

+ .258 Coulometric (voltametric) titrations

543.27 **Gas (and air) analysis (incl. sampling)**

.271 Combined apparatus and trains

.272 Selective absorption of specific gases. Absorption trains and units

- .1 Oxygen determination
- .2 Hydrogen determination
- .3 Nitrogen determination. Nitrometers
- .4 Halogen determination
- .5 Sulphur determination
- .6 Carbon determination
- .7 Hydrocarbon determination

	543.273	Combustion methods of gas analysis. ≙ 543.272
+	.08	Combustion trains, explosion pipettes, etc.
	.274	Gravimetric and other methods for determining gaseous constituents and their properties
	.275	Determination of non-gaseous constituents in suspension, aerosols, smokes, etc. Moisture, humidity, etc. → 533.275
	.278	Analysis of(non-gaseous) substances by volumetric or gravimetric determination of their gaseous decomposition products
	.279	Gas volumetric analysis. Volumetric determination of gaseous products of gas decomposition
	543.3	Water sampling and analysis → 628.1; 663.6
	.31	Water impurities and inorganic matter generally
+	.316	Turbidity
	.32	Hardness, permanent and temporary
+	.321	Permanent hardness (~~sup~~ sulphates)
+	.322	Temporary hardness (bicarbonates)
	.33	Iron, manganese, aluminium content of water
	.34	Nitrogen content of water
	.35	Hydrogen sulphide, sulphides in water
	.36	Halogen, silicates and other salts
	.37	Dissolved gases in water. Aggressivity
	.38	Organic matter and impurities in water
	.39	Microbiological & bacteriological analysis of water → 576.8; 614.777
	543.4	Optical methods of analysis
	.41	Simple visual methods. Colour reactions. Flame coloration
	.42	Spectrum and fluorescence analysis. Cf. 543.51
	.422	Absorption spectrum analysis
	.2	Absorption spectrum analysis with radio- and microwaves
+	.25	Radiofrequency techniques. Nuclear magnetic resonance
+	.27	Microwave techniques
+	.4	Infra-red spectrum analysis
+	.5	Visible-light spectrum analysis
+	.6	Ultra-violet spectrum analysis
+	.8	X-ray spectrum analysis

	543.423	Emission spectrum analysis ≙ 543.422
	.426	Fluorescence analysis
	.43	Colorimetric and nephelometric analysis
+	.432	Colorimetric analysis
+	.436	Nephelometric or turbidimetric analysis
	.45	Refractometric analysis
	.46	Interferometric analysis
	.47	Polarimetric analysis
	543.5	Physico-chemical methods of analysis (non-optical)
	.51	Positive ray analysis. Mass spectrography and spectrometry. Cf. 621.384.8
	.52	Radiometric analysis
	.53	Radiochemical, activation analysis (with radiations) giving rise to radioactivity or nuclear reactions → 539.16/.17
	.54	Capillary and adsorption analysis. Stalagmometry. Chromatography. Electrophoresis
+	.541	Elution, staining and development methods
+	.542	Surface tension methods. Stalagmometry
+	.544	Chromatographic analysis
+	.2	Adsorption, displacement chromatography
+	.4	Partition chromatography: paper, gas-fluid, etc.
+	.545	Electrophoretic analysis. Ionophoresis. Electrochromatography
	543.7/.9	INORGANIC, ORGANIC & BIOLOGICAL ANALYSIS
	543.7	Inorganic analysis. Moisture and impurities
	.71	Moisture. Humidity. Volatile constituents
	.72	Soluble and insoluble constituents
+	.721	Soluble constituents, esp. water-soluble
+	.725	Insoluble constituents, esp. water-insoluble
	.73	Inorganic impurities
	.74	Organic impurities
	.77	Rational analysis
	.78	Determination of stage or degree of completion of inorganic reactions, e.g. of combustion in cement production
	.79	Proportion of the principal constituent (determination)

543.8 Organic analysis. Volatile, ash and other content

	.81	Moisture. Volatile constituents and residues
	.82	High-temperature combustion. Ash content
	.83	Soluble constituents
+	.831	Water-soluble constituents
+	.832	Water-insoluble, soluble in other solvents
	.84	Elementary analysis
+	.841	Generalities. Simultaneous determination of several elements
	.842	Carbon determination
	.843	Hydrogen determination
	.844	Oxygen determination
	.845	Sulphur (and analogue) determination
	.846	Nitrogen determination
	.847	Phosphorous (and analogue) determination
	.848	Halogen determination
	.849	Determination of other elements Specify by :546 or 547...06:546...
	.85	Determination of fat content and oxygen-containing compounds
	.851	Ester and saponification value. Neutral fat content. Saponifiable matter
	.852	Free acid content. Hydroxy acids, lactones
	.853	Monoglycerides and ~~[illegible]~~ diglycerides
	.854	Hydroxy, erbonyl and carbohydrate compounds
+	.1	Hydroxy compounds
+	.6	Carbonyl compounds
+	.7	Carbohydrate content Specify by :547.45
	.855	Unsaponifiable matter
	.856	Saponified ester (salt or soap) content
+	.857	Characteristic reactions (fat content)
	.86	Determination of other matter Specify by :546 and :547... and → 543.9
	.862	Aromatic and naphthenic constituents
	.865	Protein content. Specify by :547.96...
	.866	Enzyme content. Specify by:577.15...
	.867	Vitamin content. Specify by : 577.16
	.868	Insoluble matter, e.g. raw fibres
	.869	Various impurities: tars, resins, etc.

	543.87	Oxidisability. Flash, fire, decomposing points. Explosivity, reactivity, etc. → 536.46; 541.124/.127; 541.427
+	.872	Oxidisability in general
+	.873	Flammability. Inflammability. Flash point
+	.874	Combustibility. Ignition temperature or point
+	.875	Decomposition point
+	.876	Explosivity. Stability
+	.878	Reactivity with various substances
	.89	Proportion of the prinécipal constituent (dtermination)
	543.9	Biological, bacteriological and biochemical analysis and reactions. Cf. 543.86; 576.8; 577.1
	-078	Bacteriological diagnosis → 576.8.078
	.92	Organoleptic reactions: smell, taste, feel → 541.69
	.926	Characteristic smell
	.927	Characteristic taste
	.928	Characteristic feel
	.929	Characteristic "feel" to the tongue. Cf. 543.927

546 INORGANIC CHEMISTRY

→ 661, esp.661.8

A. Designation of compounds

(1) Most inorganic compounds may be regarded as the result of a real or hypothetical reaction between two (or more) oxides, or between an oxide and a hydride, or as a combination of two or more ions charged positively (cations) or negatively (anions). They may therefore be designated by combining the relevant UDC numbers for these radicals, using the '(apostrophe) sign instead of repeating the figures 546.

(2) A binary compound is denoted by writing the 546...number for the cation (metal radical) concerned and attaching the relevant number for the anion (acid radical), replacing the second :546 by '(apostrophe), thus:-

546.561'131 Cuprous chloride

(from 546.561 Monovalent copper, and 546.131 Chlorides).

(3) Compounds with three or more component radicals are denoted by writing the highest cation (metal) number 546... and attaching the relevant number for any other metal, followed by the number(s) for the anion (acid) radical(s), in descending order — again replacing the figures 546 by the '(apostrophe) sign each time, e.g.

546.623'32'226 Potassium aluminium sulphate (potash alum)

(from 546.623 Trivalent aluminium, 546.32 Potassium and 546.226 Sulphates).

(4) More precise differentiation of similar compounds with the same UDC apostrophe-combined number is achieved by addition of the appropriate -3... special auxiliary from 54-3, e.g.

546.33'185 Sodium phosphates
-384.1 Sodium dihydrogen phosphate, NaH_2PO_4
-384.2 Disodium hydrogen phosphate, Na_2HPO_4
-384.3 Sodium phosphate, Na_3PO_4

(5) Simple oxides are designated by -31, acids by -32 and hydroxides by -36, e.g.

546.714-31 Manganese dioxide, MnO_2 (tetravalent Manganese)

B. Isotopes

Comprehensive studies of the isotopes of a given element are denoted by adding .02 to the relevant 546... number, e.g.

546.13.02 Isotopes of Chlorine
546.791.02 Isotopes of Uranium (in general)

Individual isotopes are specified by adding, after the .02, the appropriate mass number, e.g.

546.791.02.238 Uranium 238 or $^{238}_{92}U$.

Elements in the order of their atomic numbers

Atomic no. & symbol	UDC no.	Atomic no. & symbol	UDC no.
1 H	546.11	52 Te	546.24
2 He	546.291	53 J	546.15
3 Li	546.34	54 Xe	546.295
4 Be	546.45	55 Cs	546.36
5 B	546.27	56 Ba	546.431
6 C	546.26	57 La	546.654
7 N	546.17	58 Ce	546.655
8 O	546.21	59 Pr	546.656
9 F	546.16	60 Nd	546.657
10 Ne	546.292	61 Pm	546.658
11 Na	546.33	62 Sm	546.659
12 Mg	546.46	63 Eu	546.661
13 Al	546.621	64 Gd	546.662
14 Si	546.28	65 Tb	546.663
15 P	546.18	66 Dy	546.664
16 S	546.22	67 Ho	546.665
17 Cl	546.13	68 Er	546.666
18 Ar	546.293	69 Tm	546.667
19 K	546.32	70 Yb	546.668
20 Ca	546.41	71 Lu	546.669
21 Sc	546.631	72 Hf	546.832
22 Ti	546.821	73 Ta	546.883
23 V	546.881	74 W	546.78
24 Cr	546.76	75 Re	546.719
25 Mn	546.711	76 Os	546.94
26 Fe	546.72	77 Ir	546.93
27 Co	546.73	78 Pt	546.92
28 Ni	546.74	79 Au	546.59
29 Cu	546.56	80 Hg	546.49
30 Zn	546.47	81 Tl	546.683
31 Ga	546.681	82 Pb	546.815
32 Ge	546.289	83 Bi	546.87
33 As	546.19	84 Po	546.794
34 Se	546.23	85 At	546.169
35 Br	546.14	86 Rn	546.296
36 Kr	546.294	87 Fr	546.37
37 Rb	546.35	88 Ra	546.432
38 Sr	546.42	89 Ac	546.797
39 Y	546.641	90 Th	546.841
40 Zr	546.831	91 Pa	546.796
41 Nb	546.882	92 U	546.791
42 Mo	546.77	93 Np	546.799.3
43 Tc	546.718	94 Pu	546.799.4
44 Ru	546.96	95 Am	546.799.5
45 Rh	546.97	96 Cm	546.799.6
46 Pd	546.98	97 Bk	546.799.7
47 Ag	546.57	98 Cf	546.799.8
48 Cd	546.48	99 E	546.799.9
49 In	546.682	100 Fm	546.799.90
50 Sn	546.811	101 Md	546.799.91
51 Sb	546.86	102 No	546.799.92
		103 Lw	546.799.93

Elements in the alphabetical order of their symbols

Atomic no. & symbol		UDC no.
89	Ac	546.797
47	Ag	546.57
13	Al	546.621
95	Am	546.799.5
18	Ar	546.293
33	As	546.19
85	At	546.169
79	Au	546.59
5	B	546.27
56	Ba	546.431
4	Be	546.45
83	Bi	546.87
97	Bk	546.799.7
35	Br	546.14
6	C	546.26
20	Ca	546.41
48	Cd	546.48
58	Ce	546.655
98	Cf	546.799.8
17	Cl	546.13
96	Cm	546.799.6
27	Co	546.73
24	Cr	546.76
55	Cs	546.36
29	Cu	546.56
66	Dy	546.664
99	E	546.799.9
68	Er	546.666
63	Eu	546.661
9	F	546.16
26	Fe	546.72
100	Fm	546.799.90
87	Fr	546.37
31	Ga	546.681
64	Gd	546.662
32	Ge	546.289
1	H	546.11
2	He	546.291
72	Hf	546.832
80	Hg	546.49
67	Ho	546.665
49	In	546.682
77	Ir	546.93
53	J	546.15
19	K	546.32
36	Kr	546.294
57	La	546.654
3	Li	546.34
71	Lu	546.669
103	Lw	546.799.93
12	Mg	546.46
25	Mn	546.711

Atomic no. & symbol		UDC no.
42	Mo	546.77
101	Md	546.799.91
7	N	546.17
11	Na	546.33
41	Nb	546.882
60	Nd	546.657
10	Ne	546.292
28	Ni	546.74
102	No	546.799.92
93	Np	546.799.3
8	O	546.21
76	Os	546.94
15	P	546.18
91	Pa	546.796
82	Pb	546.815
46	Pd	546.98
61	Pm	546.658
84	Po	546.794
59	Pr	546.656
78	Pt	546.92
94	Pu	546.799.4
88	Ra	546.432
37	Rb	546.35
75	Re	546.719
45	Rh	546.97
86	Rn	546.296
44	Ru	546.96
16	S	546.22
51	Sb	546.86
21	Sc	546.631
34	Se	546.23
14	Si	546.28
62	Sm	546.659
50	Sn	546.811
38	Sr	546.42
73	Ta	546.883
65	Tb	546.663
43	Tc	546.718
52	Te	546.24
90	Th	546.841
22	Ti	546.821
81	Tl	546.683
69	Tm	546.667
92	U	546.791
23	V	546.881
74	W	546.78
54	Xe	546.295
39	Y	546.641
70	Yb	546.668
30	Zn	546.47
40	Zr	546.831

	546	INORGANIC CHEMISTRY → 661
+	546-1	State of the substance. ≙ 54-1
+	-3	Special types of compounds. ≙ 54-3
+	-4	Reagents, catalysts, etc. ≙ 54-4
	.01/.09	Occurrence, composition, properties, preparation, etc. ≙ 54.01/.09
	.02	Isotopes (add atomic number)
+	-114	Artificially produced isotopes. Fission products
+	.06	Analysis (but cf. 543)
	.07	Chemical preparation, synthesis
	.08	Measurement, units, instruments, etc.
	546.1	NON-METALS (METALLOIDS) IN GENERAL → 661.2/.6
	.11	Hydrogen, H and hydrides. Cf. 546.21
+	-12	Elementary, atomic, molecular Hydrogen
	.02	Heavy Hydrogen
	.02.2	Deuterium, D or ${}^{2}_{1}H$
	.02.3	Tritium, T or ${}^{3}_{1}H$
	.12	Halogens in general → 661.4
	.121	Generalities on Halogen compounds, hydrides & halides
	.1	Halogen hydrides, and halides
	.13	Metal halides in general
	.13	Chlorine, Cl and its compounds
	.131	Hydrochloric acid, HCl. Chlorides
+	.132	Compounds with other non-metals
	.133.1	Monovalent Cl compounds. Hypochlorites
+	-31	Chlorine monoxide (Hypochlorous anhydride), Cl_2O
	-36	Hypochlorous acid, HOCl
	.2	Bivalent (hypothetical) Cl compounds
	.3	Trivalent (hypothetical) Cl compounds. Hypochloric acid, $HClO_2$ and derivatives

	546.134	Tetravalent Cl compounds. Chlorine dioxide, ClO_2, etc.
	.135	Pentavalent Cl compounds. Chlorates
	-32	Chloric acid, $HClO_3$
	.136	Hexavalent (hypothetical) Cl compounds
	.137	Heptavalent Cl compounds. Perchlorates
	-32	Perchloric acid, $HClO_4$
	.14	Bromine, Br and its compounds. ≙ 546.13, e.g.
+	.141	Hydrobromic acid, HBr. Bromides
+	.142'13	Compounds with chlorine
	.15	Iodine, I and its compounds. ≙ 546.13, e.g.
+	.151	Hydriodic acid, HI. Iodides
+	.152'13	Compounds with Chlorine
+	.152'14	Compounds with Bromine
	.16	Fluorine, F and its compounds. ≙ 546.13, e.g.
+	.161	Hydrofluoric acid, HF. Fluorides
	.169	Astatine, At (ekaiodine, alabamine) and compounds ≙ 546.13
	546.17/.19	Group V non-metals → 546.85
	.17	Nitrogen, N and its compounds → 661.5
	.171	Nitrogen - Hydrogen compounds
	.1	Ammonia, NH_3. Nitrides → 546.39; 547.23
+	.8	Hydrazoic acid, N_3H or HN_3. Azides
	.172	Hydroxylamine, NH_2OH and derivatives. Cf. 547.238
+	.5	Nitrous oxide, N_2O and derivatives
+	.6	Nitric oxide, NO and derivatives

546.173 Trivalent N compounds. Nitrites
-31 Nitrogen trioxide (Nitrous anhydride), N_2O_3
-325 Nitrous acid, HNO_2
'131 Nitrogen trichloride, NCl_3
+ -31 Nitrosyl chloride, $NOCl_3$
.174 Nitrogen peroxide (dioxide NO_2, tetroxide N_2O_4)
.175 Pentavalent N compounds. Nitrates
-31 Nitrogen pentoxide (nitric anhydride), N_2O_5
-325 Nitric acid, HNO_3
.176 Aqua regia. Hydrochloric/ nitric acid mixture
.177 Pernitric acid, HNO_4

.18 Phosphorus, P and its compounds. ≡ 546.17, e.g.
.181.1 Phosphine, PH_3. Phosphides
.183 Trivalent, phosphorous compounds. Phosphites
+ -31 Phosphorus trioxide, P_2O_3 or P_4O_6
+ -325 Phosphorous acid, H_3PO_3
.185 Pentavalent, phosphoric compounds. Phosphates
Phosphorus pentahalides, pentasulphides, etc.
+ -31 Phosphorus pentoxide, P_2O_5
-325 Phosphoric acid, H_3PO_4
+ '131 Phosphorus pentachloride, PCl_5
+ -31 Phosphorus oxychloride, $POCl_3$
+ '221 Phosphorus pentasulphide and derivatives

.19 Arsenic, As and its compounds. ≡ 546.17, e.g.
+ -17 Allotropes: a-(yellow) and B-(black) arsenic
+ '12 Arsenic halides and halo compounds generally
+ .191.1 Arsine, AsH_3. Arsenides
+ .193 Trivalent As compounds. Arsenites
+ -31 Arsenic trioxide (White arsenic), As_2O_3
+ '221 Arsenic trisulphide (orpiment), As_2S_3
+ .194'221 Arsenic mono- or di-sulphide, AsS or As_2S_2
+ .195 Pentavalent As compounds. Arsenates
+ -325 Arsenic acid, H_3AsO_4
+ '221-325 Thioarsenic acid, H AsS_3

	546.21/.24	**Group VI non-metals(metalloids)** → 546.794
	.21	**Oxygen, O** and its compounds. Water. Ozone. Air
	.212	Water
	.02	Heavy water (Deuterium oxide), D_2O. Cf. 546.11.02.2
	.214	Ozone, O_3
	.215	Hydrogen peroxide, H_2O_2
+	.217	Air. Cf. 551.510.4; 661.5; 661.92
	.22	**Sulphur, S** and its compounds → 661.2
+	-121	Free
	.221	Hydrogen sulphide, H_2S and derivatives. Sulphides
	.222	Hydrogen persulphides. Polysulphides
	.223.1	Hypothetical monovalent (oxidized) S compounds
	.2	Hypothetical divalent S compounds. Thiosulphates
	-325	Thiosulphuric acid, $H_2S_2O_3$
	.3	Trivalent S compounds. Hyposulphites
	-31	Sulphur sesquioxide, S_2O_3
	.224	Tetravalent sulphur compounds. Sulphites
	-31	Sulphur dioxide (Sulphorous anhydride), SO_2
	-325	Sulphurous acid, H_2SO_3
	.226	Hexavalent sulphur compounds. Sulphates
	-31	Sulphur trioxide (Sulphuric anhydride), SO_3
	-324	Pyrosulphuric acid, $H_2S_2O_7$
	-325	Sulphuric acid, H_2SO_4
	.227	Persulphuric acid, $H_2S_2O_8$ and derivatives
	.228	Polythionic acids and derivatives
+	.2	Dithionic (hyposulphuric) acid, $H_2S_2O_4$

	546.23	**Selenium, Se** and its compounds ≙ 546.22
	.24	**Tellurium, Te** and its compounds ≙ 546.22
	546.25	**Group III and IV non-metals (metalloids)**
	.26	**Carbon, C** and its inorganic compounds → 547; 577.1; 661.7
+	-161	Amorphous carbon
	-162	Graphite. Diamond → 549.21
+	.02.14	Isotope Carbon 14 or $^{14}_{12}C$
	.261	Hydrocarbons and derivatives. Carbides
	.262	Lower oxides of Carbon derivatives
	.3	Divalent C compounds. CO, Carbonyls
	-31	Carbon monoxide, CO
+	.263	Trivalent (hypothetical) C compounds
	.264	Tetravalent C compounds. Carbonates
	-31	Carbon dioxide, CO_2
+	'131-31	Phosgene, Carbon oxychloride, Carbonyl chloride
+	.265	Sulphur, Se and Te compounds of Carbon. Carbon disulphide, CS_2, etc.
	.266	Cyanogen, C_2N_2 or N≡C-C≡N
	.267	Hydrocyanic acid and derivatives. Cyanides, etc.
+	.1	Cyanic acid and derivatives. Cyanates
+	.5	Thiocyanic acid and derivatives. Thiocyanates
	.27	**Boron, B** and its compounds. Cf. 547.1-127
	.271	Hydroborons (B hydrides) and derivatives. Boranes. Borides
	.272	Boron monoxide, BO
	.273	Trivalent Boron compounds. Trihalides. Borates
	-31	Boron trioxide (Boric anhydride), B_2O_3
+	-32	Boric acids (meta-, pyro-, ~~otho-~~ ortho-)
	'131	Boron trichloride, BCl_3
+	'161	Boron trifluoride, BF_3
+	'261	Boron carbide, B_4C

546.28 Silicon, Si and its compounds

+ .281 Hydrosilicons (Si hydrides) and derivatives. Silicones. Silicides

'261 Silicon carbide, SiC

.284 Tetravalent Si compounds, tetrahalides. Silicates

-31 Silicon dioxide or Silica, SiO_2

-325 Normal silicic acid, H_2SiO_3

'161 Silicon tetrafluoride, SiF_4

-32 Hydrofluosilicic acid, H_2SiF_6

.286 Hexavalent Si compounds

.287 Organic silicon compounds, e.g.
Silico-oxalic acid, $H_2Si_2O_4$
→ 547.1'128

.289 Germanium, Ge and its compounds
546.289.1/.7 ≙ 546.281/.287

.29 Zerovalent elements. Inert or rare gases.
Helium, Neon, Argon, Krypton, Xenon and Radon

.291 Helium, He
.292 Neon, Ne
.293 Argon, Ar
.294 Krypton, Kr
.295 Xenon, Xe
.296 Radon (Niton), Rn

546.3 METALS (AND THEIR COMPOUNDS) IN GENERAL
→ 661.8; 669 and notes at 546

-19 Alloys
→ Preferably 669.018 and 669...5

546.31 Group I metals generally
Alkali metals (Gp Ia). Cf. 546.55 (Gp Ib)

.311 Group I.a. Alkali metals generally
→ 661.3; 661.83

	546.32	Potassium, K and its compounds, e.g.
+	-121	Elementary (metallic) potassium
	-31	Potassium monoxide, K_2O
	-36	Potassium hydroxide (caustic potash), KOH
	-39	Potassium peroxide, K_2O_2
+	'11	Potassium hydride, KH
+	'121	Potassium halides (generally)
	'131	Potassium chloride, KCl
	'135	Potassium chlorate, $KClO_3$
+	'14	Potassium bromide, KBr, bromate $KBrO_3$, etc.
+	'15	Potassium iodide KI, iodate KIO_3, etc.
	'173	Potassium nitrite, KNO_2
	'175	Potassium nitrate, KNO_3
	'185	Potassium phosphate, KP
	'221	Potassium sulphide, K_2S
	'226	Potassium sulphate, K_2SO_4
	-384.1	Potassium bisulphate, $KHSO_4$
	'264	Potassium carbonate, K_2CO_3
	-384.1	Potassium bicarbonate, $KHCO_3$
	'267	Potassium cyanide, KCN
	'273	Potassium borate, $K_2B_4O_7$
	-39	Potassium perborate
	'284	Potassium silicate, $K_2O.xSiO_2$
	'161	Potassium silicofluoride, K_2SiF_6
+	'766	Potassium chromate and dichromate
	.33	Sodium, Na and its compounds, e.g.
+	-36	Sodium hydroxide (caustic soda), NaOH
	'131	Sodium chloride (common salt), NaCl
+	'264	Sodium carbonate, Na_2CO_3, bicarbonate $NaHCO_3$
	'273	Sodium tetraborate, borax, $Na_2B_4O_7$

546.34 Lithium, Li and its compounds, e.g.

+ -31 Lithium monoxide or lithia, Li_2O
+ '11 Lithium hydride, LiH

.35 Rubidium, Rb and its compounds

.36 Caesium, Cs and its compounds

.37 Francium, Fr ~~and its compounds~~(Ekacaesium,Virginium)
and its compounds

+ .02.223 Francium 223, isotope $^{223}_{87}Fr$

.39 Ammonium (hypothetical), NH_4 compounds, e.g.

+ '131 Ammonium chloride (Sal ammoniac) NH_4Cl
+ '175 Ammonium nitrate, NH_4NO_3 Cf. 546.17
+ '268 Ammonium carbonate (Sal volatile), $(NH_4)_2CO_3$

546.4 Group II metals. Alkaline earth metals and their compounds. Cf. 661.84

.41 Calcium, Ca and its compounds, e.g.

+ -31 Calcium oxide (caustic or quick-lime), CaO
+ -36 Calcium hydroxide (hydrated, slaked lime), $Ca(OH)_2$
+ '131 Calcium chloride, $CaCl_2$
+ '133.1 Calcium hypochlorite (bleaching powder)
'261 Calcium carbonate (chalk), $CaCO_3$
+ '786 Calcium tungstate, $CaWO_4$

.42 Strontium, Sr and its compounds, e.g.

+ '226 Strontium sulphate, $SrSO_4$

546.431 Barium, Ba and its compounds, e.g.

+ '221 Barium sulphides

.432 Radium, Ra
→ 546.296; 546.79

.02 Radium isotopes, e.g.
.02.223 Radium 223, isotope $^{223}_{88}Ra$
.441 Generalities on Beryllium-Magnesium group
(or use 546.45/.46)
.442 Generalities on Alkaline earths
(or use 546.41/.46 or 546.4 itself)
.443 Generalities on zinc-, cadmium- and mercury group
(or use 546.47/.49)

.45 Beryllium, Be (Glucinum) and its compounds, e.g.

+ '264 Beryllium carbonate, $BeCO_3$

.46 Magnesium, Mg and its compounds, e.g.

+ -31 Magnesium oxide, MgO
+ '171.1 Magnesium nitride, Mg_3N_2

.47 Zinc, Zn and its compounds, e.g.

+ '226 Zinc sulphate, $ZnSO_4$

.48 Cadmium, Cd and its compounds, e,g,

+ '221 Cadmium sulphide

.49 Mercury, Hg (Hydrargum, Quicksilver) and compounds

+ -121 Metallic Mercury
+ .02 Isotopes of Mercury
.491 Monovalent, mercurous compounds, e.g.
+ '131 Mercurous chloride (calomel), Hg_2Cl_2
.492 Bivalent mercuric compounds, e.g.
+ '131 Mercuric chloride (corrosive sublimate), $HgCl_2$

	546.55	**Group I.b metals** (copper-silver-gold group)
	.56	**Copper, Cu** and its compounds
+	-121	Metallic copper
	.561	Monovalent cuprous compounds, e.g.
+	-31	Cuprous oxide, Cu_2O
+	'131	Cuprous chloride, Cu_2Cl_2
	.562	Divalent cupric compounds, e.g.
+	'226	Cupric (copper) sulphate, $CuSO_4$
+	'39'226	Cuprammonium sulphate
	.57	**Silver, Ag** and its compounds
	.571	Monovalent (argentous) compounds, e.g.
+	-31	Argentous (silver) oxide, Ag_2O
+	'121	Silver halides, $AgCl$, $AgBr$, AgI, AgF
+	'175	Silver nitrate, $AgNO_3$
	.572	Divalent (argentic) compounds, e.g.
+	-31	Argentic oxide, AgO
+	.573	Trivalent Ag compounds, e.g.
+	-31	Silver sesquioxide, Ag_2O_3
	.59	**Gold, Au** and ist compounds
	.591	Monovalent (aurous) compounds, e.g.
+	'131	Aurous (gold) chloride
	.593	Trivalent (auric) compounds, e.g.
+	-31	Auric oxide (auric acid), Au_2O_3
	546.6	**Group III metals**
	.621	**Aluminium, Al** and its compounds generally
	.623	Trivalent Al compounds. Alums. Aluminates
+	-31	Aluminium (tri)oxide or alumina, Al_2O_3
+	'226	Aluminium sulphate, $Al_2(SO_4)_3$
	'33	Sodium aluminate, $NaAlO_2$
	'39'226	Ammonium alum, $NH_4Al(SO_4)_2 \cdot 12H_2O$

546.631 Scandium, Sc and its compounds

.633 Trivalent Scandium compounds, e.g.

+ '264'33 Scandium double carbonate, $Sc(CO_3).4Na_2CO_3.6H_2O$

.641 Yttrium, Y or Yt and its compounds. Cf. 546.66

.643 Trivalent Yttrium compounds, e.g.

+ -31 Yttrium oxide, Y_2O_3

.65 Rare earth elements. Lanthanides

...3 Trivalent compounds (as under 546.655)
...4 Tetravalent compounds

.651 Cerium group (generally)

.654 Lanthanum, La

.655 Cerium, Ce and its compounds

.3 Trivalent Ce compounds, ~~e.g.~~
.4 Tetravalent Ce compounds, e.g.
+ -31 Cerium oxide, CeO_2

.656 Praseodymium, Pr
.657 Neodymium, Nd
.658 Promethium, Pm (Illinium)
.659 Samarium, Sm

.66 Yttrium group (generally). Cf.546.641
.661 Europium, Eu
.662 Gadolinium, Gd
.663 Terbium, Tb
.664 Dysprosium, Dy
.665 Holmium, Ho
.666 Erbium, Er
.667 Thulium, Tm
.668 Ytterbium, Yb
.669 Lutecium, Lu (Cassiopeium)

+ 546.68 Group IIIb metals (Gallium subgroup)

...1 Monovalent compounds
...3 Trivalent compounds (as under 546.683)

.681 Gallium, Ga and its compounds, e.g.

+ '191.1 Gallium arsenide

.682 Indium, In and its compounds, e.g.

+ -31 Indium oxides

.683 Thallium, Tl and its compounds

.1 Monovalent Thallium compounds, e.g.
+ '623'226 Thallium alum
.3 Trivalent Thallium compounds, e.g.
+ '32'226 Thallium potassium alum

546.7 Group VI, VII and VIII metals

.71 Group VII metals (Manganese subgroup)

.711 Manganese, Mn and its compounds

.712 Divalent Mn compounds, e.g.
+ -31 Manganous oxide, MnO
.713 Trivalent Mn compounds, e.g.
~~-31 Manganesesquioxide, Mn_2O_2~~
+ -31 Manganese sesquioxide, Mn_2O_3
.714 Tetravalent Mn compounds. Manganites
+ -31 Manganese dioxides, MnO_2
.716 Hexavalent Mn compounds. Manganates
.717 Heptavalent Mn compounds. Permanganates
'32 Potassium permanganate, $KMnO_4$
.718 Technetium, Tc (Masurium)

.719 Rhenium, Re and its compounds. ≙ 546.71, e.g.
+ .6 Hexavalent Re compounds. Rhenates
+ .7 Heptavalent Re compounds. Perrhenates

546.72/.74 Group VIII non-precious metals
→ 546.9

.72 **Iron, Fe** and its compounds

.722 Divalent, ferrous compounds, e.g.
+ -31 Ferrous oxide FeO
+ '226 Ferrous sulphate, $FeSO_4$. Copperas
.723 Trivalent Fe compounds, e.g.
+ -31 Ferric oxide, Fe_2O_3
+ '267 Ferricyanides
+ '722-31 Ferroso-ferric oxide, Fe_3O_4(Magnetite)
.726 Hexavalent Fe compounds. Ferrates

.73 **Cobalt, Co** and its compounds

.732 Divalent Co compounds, e.g.
+ -31 Cobalt oxide, CoO
.733 Trivalent Co compounds, e.g.
+ '32'173 Complex nitrites of cobalt and potassium

.74 **Nickel, Ni** and its compounds

.742 Divalent Ni compounds
.743 Trivalent Ni compounds

+ .75 Group VI metals (Chromium subgroup)

.76 **Chromium, Cr** and its compounds

.762 Divalent chromous compounds, e.g.
+ '131 Chromous chloride, $CrCl_2$
.763 Trivalent, chromic compounds, alums. Chromites
+ '226 Chromic sulphate, $Cr_2(SO_4)_3$
.766 Hexavalent Cr compounds. Chromates

.77 **Molybdenum, Mo** and its compound

.772 Divalent Mo compounds
.773 Trivalent Mo compounds
.774 Tetravalent Mo compounds
.775 Pentavalent Mo compounds
.776 Hexavalent Mo compounds. Molybdates

546.78 Tungsten, or Wolfram, W and its compounds
→ 546.77, e.g.

+ .786 Hexavalent, tungstic compounds. Tungstates

.79 Radioactive elements generally. Actinides. Uranides
→ 539.16; 541.15; 541.28; 546.432

.791 Uranium, U and its compounds

.02 Isotopes of Uranium
.234 Uranium 234 or $^{234}_{92}U$
.235 Uranium 235 or $^{235}_{92}U$
.238 Uranium 238 or $^{238}_{92}U$

+ .2/.6 Di-, tri-, tetra-, penta-, hexavalent U compounds, e.g.
+ .6'161 Uranium hexafluoride, UF_6

.794 Polonium, Po (Radium F) and compounds
≙ 546.22 (Sulphur)

.796 Protoactinium, Pa and its compounds

.5 Pentavalent Pa compounds, e.g. Pa_2O_5

.797 Actinium, Ac and its compounds

.799 Transuranic elements

+ .02 Isotopes
.3 Neptunium, Np
.4 Plutonium, Pu and its compounds
.5 Americium, Am
.6 Curium, Cu
.7 Berkelium, Bk
.8 Californium, Cf
.9 Einsteinium, Es
.90 Fermium, Fm
.91 Mendel(e)evium, Md
.92 Nobelium, No
.93 Lawrencium, Lw

	546.8	Group IV and V elements
	.81	Group IV elements (generally) Tin and Lead (Gp IV b). Cf. 546.26/.289
	.811	Tin, Sn (in general)
+	-121	Elementary tin
+	-17	Allotropes of tin
	.812	Divalent, stannous compounds. Stannites
	.814	Tetravalent, stannic compounds. Stannates
+	'221	Stannic sulphide
+	'33'221	Sodium thiostannate
	.815	Lead, Pb (in general)
+	-121	Elementary lead
	.816	Monovalent Pb compounds, e.g.
+	-31	Lead suboxide, Pb_2O
	~~-36~~	~~Lead hydroxide, Pb(OH)~~$_2$
	~~'226~~	~~Lead sulphate~~
	.817	Divalent Pb compounds. Plumbites
+	-31	Lead monoxide, PbO
+	-36	Lead hydroxide, $Pb(OH)_2$
+	'226	Lead sulphate
	.818-31	Lead sesquioxide, Pb_2O_3
	.819	Tetravalent Pb compounds. Plumbates
	-31	Lead dioxide (peroxide), PbO_2
	'817	Lead orthoplumbate (red lead, minium), $Pb_2(PbO_4)=Pb_3O_4$
	.82	Titanium group
	.821	Titanium, Ti (in general)
	.822	Divalent Ti compounds
	.823	Trivalent Ti compounds, e.g. nitride
	.824	Tetravalent Ti compounds. Titanates
+	-31	Titanium (di)oxide (Titania), TiO_2

546.83 Zirconium and Hafnium

.831 Zirconium, Zr and compounds. ≙ 546.82, e.g.

+ .4 Tetravalent Zr compounds. Zirconia, ZrO_2, etc.

.832 Hafnium, Hf and its compounds
≙ 546.82

.841 Thorium, Th and compounds. ≙ 546.82, e.g.

+ .4 Tetravalent Th compounds, e.g. oxide ThO_2

.85 Group V elements (generally). Cf. 546.17/.19

.86 Antimony, Sb and its compounds. ≙ 546.17, e.g.

.861 Hydrogen Sb derivatives. Stibine SbH_3 and dihydride Sb_2H_2
.863 Trivalent Sb compounds; halides, etc.
.865 Pentavalent Sb compounds

.87 Bismuth, Bi and its compounds
≙ 546.86

+ .88 Group Va metals (V-Nb-Ta)

.881 Vanadium, V and its compounds

.2 Divalent compounds
.3 Trivalent compounds
.4 n Tetravalent compunds
.5 Pentavalent compounds. Vanadates

.882 Niobium, Nb (Columbium) and its compounds
≙ 546.881

.883 Tantalum, Ta and its compounds
≙ 546.881

	546.9	Group VIII elements (generally) Cf. 546.72/.74
+	.91	Platinum group (Pt-Ir-Os)
	.92	Platinum, Pt and its compounds
	.921	Monovalent Pt compounds
	.922	Divalent platinous compounds, halides, e.g. $PtCl_2$
	.923	Trivalent Pt compounds
	.924	Tetravalent, platinic compound. Platinates
	.926	Hexavalent Pt compounds
	.93	Iridium, Ir and its compounds ≙ 546.92
	.94	Osmium, Os and its compounds ≙ 546.92
+	.95	Ruthenium group (Ru-Rh-Pd)
	.96	Ruthenium, Ru and its compounds ≙ 546.92
	.97	Rhodium, Rh and its compounds ≙ 546.92
	.98	Palladium, Pd and its compounds ≙ 546.92
+	.99	Undefined (hence doubtful) elements → 523.04

547 ORGANIC CHEMISTRY

→ 661.7 ; 67, esp.678

Further possibilities for detailed designation of organic compounds, beyond the direct decimal divisions here scheduled, are :-

a) use of the '(apostrophe) sign
  - '11/'19 to replace repeated :546.1/.9 (inorganic radicals)
  - '2 /'8 to replace repeated 547.2/.8 (organic radicals)

b) use of the -1/-4 auxiliaries from 54-1/-4, e.g.

-126	Polymerized
-127	Polycondensed
-31	Oxides, simple oxides

c) use of the .01/.09 auxiliaries from 54.0, e.g.

.04	Chemical properties
.06	Analysis (cf.543)

d) use of the molecular formula or C_n (n = no. of C atoms)
  - molecular formula added direct to 547, e.g.
    547 CH_4O Methyl alcohol
  - formula, or no. of C atoms C_n added to any insufficiently detailed 547... division.

547.1 Generalities on organic chemistry

For theoretical problems, use :541...

'128	Silicones (from 546.28, replacing 546 by '1)
'13	Organic metal compounds in general
.12	Carbon linkages, chains
.14	Comparison between cyclic and acyclic compounds → 547.51 ; 547.52

547.2 ACYCLIC, ALIPHATIC COMPOUNDS GENERALLY. SATURATED ALKYL (ALKANE) COMPOUNDS

547.21 Saturated hydrocarbons. Paraffins. C_nH_{2n+2}

.21.024	Alkyl radical, C_nH_{2n+1} or R, its characteristics
.211	Methane, CH_4
.212	Ethane, C_2H_6
.213	Propane, C_3H_8
.214	Butane, C_4H_{10}
.215	Pentanes, C_5H_{12}

547.216	Hexanes, C_6H_{14}
.217.1	Heptanes, C_7H_{16}
.2	Octanes, C_8H_{18}
.3	Nonanes, C_9H_{20}
.4	Decanes, $C_{10}H_{22}$
.5	Undecanes, $C_{11}H_{24}$
.6	Dodecanes, $C_{12}H_{26}$
.7	Tridecanes, $C_{13}H_{28}$
.8	Tetradecanes, $C_{14}H_{30}$
.9	Pentadecanes, $C_{15}H_{32}$
.218.1	Hexadecanes, $C_{16}H_{34}$
.2	Heptadecanes, $C_{17}H_{36}$
.3	Octadecanes, $C_{18}H_{38}$
.4	Nonadecanes, $C_{19}H_{40}$
.5	Eicosanes, $C_{20}H_{42}$
.6	Heneicosanes, $C_{21}H_{44}$
.7	Docosanes, $C_{22}H_{46}$
.8	Tricosanes, $C_{23}H_{48}$
.9	Tetracosanes, $C_{24}H_{50}$
.219	Saturated hydrocarbons with 25 or more C atoms Add formula or C_n, e.g. 547.219 C_{60} Hexakontane, $C_{60}H_{122}$
547.22	Halogen (monohalogen) derivatives. Alkyl halides, R Hlg 547.221/.224 each ≅ 547.21, and → 547.412.12
.221	Fluorine derivatives. Alkyl fluorides
.222	Chlorine derivatives. Alkyl chlorides
.223	Bromine derivatives. Alkyl bromides
.224	Iodine derivatives. Alkyl iodides
547.23	Nitrogen monosubstituted derivatives of saturated hydrocarbons (with N and C directly linked)
.231	Nitroso derivatives. (R.NO) ≅ 547.21
.232	Nitro derivatives. ($R.NO_2$) ≅ 547.21
.233	Amines, $R\text{-}NH_2$, R_2NH, R_3N 547.233.1/.4 each ≅ 547.21
+ .1	Primary amines, $R\text{-}NH_2$ or NH_2R
+ .2	Secondary amines, R_2NH or NHR_2
+ .3	Tertiary amines, R_3N or NR_3
+ .4	Quaternary ammonium bases, R_4NOH

547.234 Hydrazines

.235 Other nitrogen derivatives with 2 N atoms.
Azo, diazo, azoxy, isonitramine compounds

+ .2 Azo compounds, e.g. '211 Azomethane

+ .4 Diazo and iso-diazo compounds, e.g. '211 Diazomethane CH_2N_2

.236 Nitrogen derivatives with 3 N atoms. Triazanes. Triazenes

.237 Nitrogen derivatives with 4 or more N atoms.
Tetrazanes. Tetrazenes

.238 Hydroxylamines. Cf. 546.172

.239 Isocyanides and nitriles

+ .1 Isocyanides (isonitriles), $R-N=C$

+ .2 Nitriles, $R-C\equiv N$. ≙547.29

547.24 Mono derivatives with non-metals (except O, S, Se, Te) directly linked to C

.241 C-Phosphorous compounds

.242 C-Arsenic ~~derivatives~~ compounds

.243 C-Antimony and C-Bismuth compounds

.244 C-Boron compounds

.245 C-Silicon compounds

.246 C-Germanium compounds

547.25 Organo-metallic(mono) compounds

≙ 546 for the metal, then by '1 and '2/'8, or as at 547'13, e.g.

547.254.6 Organic Mg compounds -or 547'146
'114.1 Bromides -or '114.1
547.254.6'114.1'212 Ethyl Mg bromide -or 547'146'114.1'212

547.26 Alcohols (monohydric saturated), $C_nH_{2n+1}OH$ or $R-OH$

'11 Esters of the alcohols, e.g.
'118.5 Alkyl phosphates
'127.3 Alkyl borates

.261 Methyl alcohol. Methanol, CH_3OH

.262 Ethyl alcohol. Ethanol, C_2H_5OH

547.263 Propyl alcohols, C_3H_7OH

.264 Butyl alcohols, C_4H_9OH

.265 Amyl alcohols, $C_5H_{11}OH$

.266 Hexyl alcohols, $C_6H_{13}OH$

.267 Heptyl alcohols, $C_7H_{15}OH$

.268 Octyl and higher alcohols ($C_nH_{2n+1}OH$).
Optionally specify by adding no. of Catons, e.g.
547.268 C_{26} Ceryl alcohol, $C_{26}H_{53}OH$

+ .1 Alcohols with 8 to 16 C atoms, e.g.

.11 Octyl alcohols. Capryl alcohols. Octanols, $C_8H_{17}OH$

.19 Hexadecyl alcohols. Cetyl alcohols, hexadecanols, $C_{16}H_{33}OH$

+ .2 Alcohols with 17 to 25 C atoms

+ .3 Alcohols with 26 to 34 C atoms, e.g.

.31 Ceryl alcohols. Cerotin, $C_{26}H_{53}OH$

.269 Sulphur(Thio), Selenium and Tellurium (S, Se or Te
directly linked to C). Mercaptans, $C_nH_{2n+1}SH$ or R-Sh, etc.
Use '122 for S, '123 Se and '124 Te analogues

547.27 Ethers R-O-R' and thio-ethers R-S-R',
Se and Te analogues

.271 Methyl ether, CH_3OCH_3 or $(CH_3)_2O$

.272 Ethyl ethers. Methyl-ethyl $CH_3OC_2H_5$ and
and Diethyl ether (Ether) $C_2H_5OC_2H_5$ or $(C_2H_5)_2O$

+ .273 Propyl ethers, e.g. '262 Ethyl propyl ether $C_2H_5OC_3H_7$

+ .279 S, Thio-ethers, $(C_nH_{2n+1})_2S$ or R_2-S

547.28 Carbonyl compounds, $C_nH_{2n}O$. Aldehydes and ketones
and S, Se & Te analogues

.281 Aldehydes. Saturated mono-aldehydes,
$(C_nH_{2n}O)C_nH_{2n+1}CHO$ or R-CHO. ≙ 547.21, e.g.

.1 Formaldehyde, HCHO

	547.281.2	Acetaldehyde, CH_3CHO
	.22	Paraldehyde, (tripolymer), $(CH_3CHO)_3$
	.23	Metaldehyde (Solid polymer) or Meta
	.72	Octyl aldehyde, $C_7H_{15}CHO$ or $CH_3(CH_2)_6CHO$
+	.283	Thio-aldehydes, seleno-aldehydes, telluro-aldehydes. Use '122 for S(thio), '123 for Se, '124 for Te
	.284	Ketones Saturated mono-ketones, RR'-CO. ≙ 547.26, e.g.
	.3	Acetone. Propanone, CH_3COCH_3 or $(CH_3)_2CO$
+	.4	C4 ketone. Methyls-ethyl ketone. Butanone, $CH_3COC_2H_5$
+	.5	C5 ketones. Pentanones: '211 Methyl propyl '212 Diethyl ketone
+	.286	Thioketones. Seleno-ketones. Telluro-ketones
	.288	Condensation products of aldehydes and ketones with ammonia, hydrazine, etc.
+	.1	~~Derivatives~~ Ammonia derivatives
	.15	Hexamethylenetetramine
	.2	Amine derivatives
	.3	Hydrazine derivatives. Hydrazones. Semicarbazones

547.29	Carboxy acids (monobasic), $C_nH_{2n}O_2$ or R-COOH. Esters, use '26..., anhydrides -31 and superoxides -39
.02	Structure of the carboxyl group
.291	Formic acid, CH_2O_2, HCOOH
.292	Acetic acid, $C_2H_4O_2$, CH_3COOH
.293	Propionic acid, $C_3H_6O_2$, C_2H_5COOH or CH_3CH_2COOH
.294	Butyric acids, $C_4H_8O_2$, C_3H_7COOH, n-Butyric acid or $CH_3(CH_2)_2COOH$ iso-Butyric acid $(CH_3)_2CHCOOH$

	547.295	Acids with 5 to 20 Carbon atoms
+	.1	Valeric acids, $C_5H_{10}O_2$, or $CH_3(CH_2)_3COOH$
	.2	Capreic acids, $C_6H_{12}O_2$ or $CH_3(CH_2)_4COOH$
+	.3	Oenanthic acids $C_7H_{14}O_2$ or $CH_3(CH_2)_5COOH$
	.4	Caprylic acids, $C_8H_{16}O_2$ or $CH_3(CH_2)_6COOH$
	.5	Pelargonic acids, $C_9H_{18}O_2$ or $CH_3(CH_2)_7COOH$
	.6	Capric acids, $C_{10}H_{20}O_2$ or $CH_3(CH_2)_8COOH$
	.71	Undecoic acids, $C_{11}H_{22}O_2$ or $CH_3(CH_2)_9COOH$
	.72	Dodecoic acids, $C_{12}H_{24}O_2$ or $CH_3(CH_2)_{10}COOH$. Lauric acid
+	.73	Tridecoic acids, $C_{13}H_{26}O_2$ or $CH_3(CH_2)_{11}COOH$
	.8	Tetradecoic acids, $C_{14}H_{28}O_2$ or $CH_3(CH_2)_{12}COOH$. Myristic acid
+	.91	Pentadecoic acids, $C_{15}H_{30}O_2$ or $CH_3(CH_2)_{13}COOH$
	.92	Hexadecoic acids, $C_{16}H_{32}O_2$ or $CH_3(CH_2)_{14}COOH$. Palmitic acid
	.94	Octadecoic acids, $C_{18}H_{36}O_2$ or $CH_3(CH_2)_{16}COOH$. Stearic acid
	.96	Eisocanic acids, $C_{20}H_{40}O_2$ or $CH_3(CH_2)_{18}COOH$. Arachidic acid
	.296	Acids with more than 20 Carbon atoms Optionally specify by adding number of C atoms
	.11/.19	Acids with 21 to 29 C atoms
+	.11	Heneicosanic acids, $C_{21}H_{42}O_2$ or $CH_3(CH_2)_{19}COOH$. Cluytic acid
	.12	Docosanic acids, $C_{22}H_{44}O_2$ or $CH_3(CH_2)_{20}COOH$. Behenic acid
	.14	Tetracosanic, lignoceric acids, $C_{24}H_{48}O_2$ or $CH_3(CH_2)_{22}COOH$
	.16	Hexacosanic, cerotic acids, $C_{26}H_{52}O_2$ or $CH_3(CH_2)_{24}COOH$
+	.21/.29	Acids with 30 to 38 C atoms
+	.21	Triacentanic acids, $C_{30}H_{60}O_2$ or $CH_3(CH_2)_{28}COOH$. Melissic acid
+	.25	Gheddic and other C_{34} acids, $C_{34}H_{68}O_2$ or $CH_3(CH_2)_{32}COOH$
	.297	Halo(gen) derivatives of acid radicals. Acyl halides 547.297.1/.6 ≅ 547.291/.296
	.298	Derivatives of ammonia, hydrazine, etc. in the carboxyl group
+	.1	Ammonia derivatives. Amides, $R\text{-}CONH_2$ ≙ 547.29, e.g.
+	.12	Acetamide, CH_3CONH_2
	.2	Imino ethers, $R\text{-}R'\text{-}NH$
	.3	Amido- and imido-halo derivatives 547.298.31/.36 ≅ 547.291/.296
+	.5	Amidines

547.3 UNSATURATED ACYCLIC (ALKENE AND ALKINE) COMPOUNDS

547.31 Unsaturated hydrocarbons

.311 Generalities on the double bond $C=C$
.312 Generalities on the triple bond $C\equiv C$
.313 Olefine hydrocarbons, C_nH_{2n} (Alkenes or Alkylenes) with $C=C$
  .2 Ethylene, C_2H_4
  .3 Propylene, C_3H_6
  .4 Butylenes, C_4H_8
  .5 Amylenes, C_5H_{10}
.314 Acetylene hydrocarbons, C_nH_{2n-2} (Alkines) with one $C\equiv C$
  .2 Acetylene, C_2H_2
.315 Allenes, divinyl, etc., C_nH_{2n-2} with $C=C=C$
  .1 Allenes. Allylene (cumulative double bonds)
  .2 Divinyl. Piperylene. Isoprene (conjugate double bonds)
+ .3 Diallyl (isolated double bonds)
.316 C_nH_{2n-4} hydrocarbons
.317 C_nH_{2n-6} hydrocarbons. Diacetylene, etc.
.318 Less saturated hydrocarbons

547.32/.39 Unsaturated (Alkene, Alkine) compounds

.321/.324 ≙ 547.221/.224, then each ≙ 547.31

.32 Monohalogen derivatives
.33 Nitrogen (unsaturated mono) derivatives with N directly linked to C
≙ 547.23
.34 Unsaturated mono derivatives with non-metals (except O, S, Se, Te) directly linked to C
≙ 547.24
.35 Organo-metallic compounds (unsaturated)
547.36 Alcohols (monohydric unsaturated)
.361 Olefinic or alkene alcohols. ≙ 547.21, e.g.
  .2 Vinyl alcohol (neurine), C_2H_3OH
  .3 Allyl alcohol, C_3H_5OH
+ .4 Phytol, $C_{20}H_{39}OH$

547.362 Acetylenic or alkine alcohols. ≙ 547.2, e.g.

+ .3 Propargyl alcohol, C_3H_3OH

.363 $C_nH_{2n-2}O$ alcohols without any triple bonds

.364 $C_nH_{2n-4}O$ alcohols

.365 $C_nH_{2n-6}O$ alcohols

.366 Monohydric alcohols less saturated than C_nH_{2n-6}

.367 Thio-analogues of unsaturated alcohols. Unsaturated mercaptans

.368 Other unsaturated sulphur derivatives. Unsaturated sulphonic and sulphinic acids

.369 Selenium and Tellurium analogues

547.37 Unsaturated ethers

.371 Ethers with one double bond

.372 Ethers with one triple bond

.373 Ethers with two double bonds

.374 Less saturated ethers

.379 Sulphur, Selenium and Tellurium analogues of the unsaturated ethers

547.38 Unsaturated mono aldehydes and ketones. Ketenes

.381 Aldehydes (olefinic or alkene). Acrolein. Crotonaldehyde. Aldehyde. Citronellal. ≙ 547.21

.382 Less saturated aldehydes. Propiolic aldehyde. Citral, etc.

.383 Unsaturated thio-aldehydes, seleno- and telluro-aldehydes

.384 Ketones (olefinic or alkene). Vinyl-alkyl, allyl-alkyl

.385 Less saturated ketones. Diallyl ketones. Phorone, etc.

.386 Unsaturated thio-ketones, seleno- and telluro-ketones

.387 Ketenes. Dimethyl ketene

.388 Condensation products of unsaturated aldehydes & ketones with ammonia, hydrazine, etc. ≙ 547.288

547.39 Monobasic unsaturated acids

.391 Acids of the series $C_nH_{2n-2}O_2$

.1 Acrylic acid, $C_3H_4O_2$

.2 Vinylacetic acid, $C_4H_6O_2$

.3 Crotonic acid. Methacrylic acid, $C_4H_6O_2$

	547•391•4	$C_5H_8O_2$ acids, e.g. Angelica and Tiglic acids
+	•5	$C_6H_{10}O_2$ acids
+	•7	$C_7H_{12}O_2$ acids
+	•82/•84	$C_8H_{14}O_2$ up to $C_{10}H_{18}O_2$ (Rhodic, Citronellic) acids
	•92/•95	$C_{11}H_{20}O_2$ (Undecylènic) up to $C_{14}H_{26}O_2$ acids
	•392•1/•4	$C_{15}H_{28}O_2$ to $C_{18}H_{34}O_2$ (Oleic, elaidic) acids
+	•51/•52	$C_{19}H_{36}O_2$ and $C_{20}H_{38}O_2$ acids
+	•6	$C_{21}H_{40}O_2$ and higher acids. ≙ 547•296, e.g.
	•612	Eruca acid, Brassidic acid, $C_{22}H_{42}O_2$
	•393	Propiolic acid series, $C_nH_{2n-4}O_2$. ≙ 547•29, e.g.
	•4	Tetrolic acid, $C_4H_4O_2$ or C_3H_3COOH
	•52	Sorbic acid, $C_6H_8O_2$ or C_5H_7COOH
	•394/•395	Acids with two double bonds. ≙ 547•391/•392, e.g.
	•395•4	Linoleic acid, $C_{18}H_{32}O_2$
	•396	Linolenic and other $C_nH_{2n-6}O_2$ acids
	•397	Halogen derivatives of unsaturated acid radicals
	•398	Derivatives of ammonia, hydrazine, etc. in the carboxyl group ≙ 547•298, e.g.
	•2	Imino-ethers

547•4 POLYSUBSTITUTED ACYCLIC COMPOUNDS

547•41 Acyclic compounds without Oxygen directly linked to Carbon. Polyhalo, -nitro compounds, etc.

•411	Poly-halo compounds: generalities
•412	Poly-halo derivatives of saturated hydrocarbons. Alkane polyhalides Specify by '113/'116 as required
•1	Methane poly-halo derivatives
•11	Dihalo derivatives, CH_2Hlg_2

	547.412.12	Trihalo derivatives, $CHHlg_3$
	.123	Chloroform, $CHCl_3$
	.124	Bromoform, $CHBr_3$
	.125	Iodoform, CHI_3
	.13	Tetrahalo derivatives, $CHlg_4$
	.133	Carbon tetrachloride, CCl_4
	.2	Dihalo derivatives of Ethane and homologues. Alkane dihalides
	.3	Compounds of type of ethylidene and isopropylidene dichlorides
	.4	Compounds of type of vicinal dichlorethane. Ethylene dichloride, $C_2H_4Cl_2$, etc.
	.5	Compounds of type of (disj.) Trimethylene and tetramethylene dichloride. Polymethylene dihalides
	.6	Trihalo derivatives of Ethane and homologues. Alkane trihalides
	.7	Higher polyhalo derivatives of Ethane and homologues
+	.72/.78	Tetrahalo to decahalo alkanes
	.9	Completely halogenated hydrocarbons (except Methane, qv.547.412.13)
	.413	Polyhalo derivatives of unsaturated hydrocarbons. Alkene and alkine polyhalides
	.1	Dihalo derivatives of ethylene and homologues. Alkene dihalides
	.2	Dihalo derivatives of acetylene and homologues, and of the less saturated hydrocarbons. Alkine, dihalides, etc.
	.4	Trihalo derivatives of unsaturated hydrocarbons. Ethylene and higher alkene trihalides
	.5	Higher polyhalo derivatives of unsaturated hydrocarbons. Perhalogen derivatives of ethylene. Alkene perhalides
	.414	Polynitro and nitroso-nitro compounds
	.2	Trinitro compounds. Nitroform (trinitromethane), $CH(NO_2)_3$, etc.
	.8	Nitro-halo paraffins, e.g. Chloropicrin, Cl_2CNO_2
	.415	Polyamines, incl. diamines and imines
	.1	Diamines. Ethylene diamine, $C_2H_4(NH_2)_2$. Tetramethylene diamine. Hexamethylene diamine $(CH_2)_6(NH_2)$, etc.
	.3	Imines
	.5	Triamines and higher polyamines

547.416 Halogen and nitro derivatives of amines

.417 Polysubstituted hydrazino, diazo and azido compounds.
Bis-Triazoethane

.418 Polysubstituted derivatives of hydroxylamine.
Alkylene di-isonitramines. Nitro-, nitroso-hydroxylamino paraffins

.419 Other acyclic polysubstituted compounds without Oxygen
directly linked to carbon

547.42 Polyhydric alcohols, mercaptans and their derivatives

.421 Glycols (hypothetical) and their derivatives: generalities

.51'261 Methylal, $CH_2(OCH_3)_2$

'262 Acetal, $CH_3CH(OC_2H_5)_2$

.422 Dihydric alcohols. Ethylene glycol and homologues, etc.

+ .2 Ethylene glycol, and its homologues,
$C_nH_{2n}(OH)_2$. ≙ 547.21, e.g.

.22 Ethylene glycol, $C_2H_6O_2$ or $C_2H_4(OH)_2$

-31 Ethylene oxide, C_2H_4O

.23 Propylene glycol, $C_3H_8O_2$ or $C_3H_6(OH)_2$

.24 2,3 Butylene glycol, $C_4H_{10}O_2$ or $C_4H_8(OH)_2$

.26 Pinacol, $C_6H_{14}O_2$ or $C_6H_{12}(OH)_2$

.423 Unsaturated α-glycols. Acetylene and divinyl ethylene glycols.
Unsaturated vic. glycols

.424 Glycols in which the hydroxyl groups are united to
2 separated C atoms (Glycols disj.)

.425 Sulphur, Se and Te compounds of the dihydric alcohols,
Se and Te analogues

+ .1 Mercaptals and mercaptoles

.2 Sulphonal. Trional. Tetronal

.5 Disulphonic acids. Ethane, propane and isobutylene

+ .7 Monothioglycols and hydroxysulphonic acids.

.426 Trihydric alcohols and their derivatives

.1 Glycerol, $C_3H_8O_3$ or $C_3H_5(OH)_3$

.2 Ethers and esters of glycerol. Glycerides. Cf. 547.915

+ .21/.23 Mono-, di-, tri-glycerides of organic acids (use '29, '39)

+ .24 Esters of inorganic acids, e.g.

'117 Nitroglycerine, $C_3H_5(ONO_2)_3$

	547.427	Higher polyhydric alcohols
	.1	Tetrahydric alcohols. Erythritol, $C_4H_{10}O_4$ or $C_4H_6(OH)_4$
	.2	Pentahydric alcohols (Pentitols), e.g. Adonitol, $C_5H_{12}O_5$ or $C_5H_7(OH)_5$
	.3	Hexahydric alcohols (Hexitols), e.g. Mannitol, $C_6H_{14}O_6$ or $C_6H_8(OH)_6$
+	.4	Hepta-, octa- and nona-hydric alcohols
	547.43	Alcohols with elements other than O, S, Se or Te directly linked to C
	.431	Halohydrins. Chlorohydrins, etc.
+	.433/.434	Nitroso alcohols. Nitro alcohols
+	.435	Amino alcohols and their ethers and esters, e.g. Choline
	.436	Amino derivatives of mercaptans, sulphonic acids, etc., e.g. Taurine/amino-ethyl sulphonic acid, $NH_2C_2H_4SO_3H$
	547.44	**Poly-aldehydes and -ketones. Poly-carbonyl compounds**
	.441	Dialdehydes. Glyoxal, $C_2H_2O_2$ or CHO-CHO. Glyoximes
	.442	Diketones
	.2	α - or 1, 2 diketones, RCO-COR'. Diacetyl $CH_3CO-COCH_3$
	.3	β - or 1, 3 diketones, $RCO-CH_2-COR'$. Acetyl acetone, etc.
	.443	Polyketones. Tri-, tetra-, hexa-ketones
	.444	Keto-aldehydes. Methyl glyoxal
	.445	Diketenes and ketene-ketones
	.446	Halo derivatives of aldehydes and ketones. Chloral, CCl_3CHO. Chloral hydrate, $CCl_3CH(OH)_2$
	.447	N-containing poly carbonyl compounds. Nitroso, nitro, hydrazine poly-aldehydes and -ketones
	.5	Amino aldehydes and ketones. Muscarine, etc.
	547.45	**Hydroxy-aldehydes and -ketones. Carbohydrates, $C_x(H_2O)_y$** → 547.91
	.451	Hydroxy-aldehydes and hydroxy-ketones (except true sugars)
+	.1	Hydroxy-aldehydes (in general)
	.2	α-hydroxy-aldehydes. Glycollic aldehyde, $C_2H_4O_2$, etc.
	.3	β-hydroxy-aldehydes. Aldols, $C_2H_4O_2$

+	547.451.5	Hydroxy-ketones. Ketols in general
+	.6/.7	Derivatives of monoketones, of polyketones (di-, tri-, etc.)
+	.8	Hydroxy derivatives of keto-aldehydes
	.452	Thio- or mercapto-aldehyde and -ketone derivatives
	.453	Sulphonic acids of aldehydes and ketones
	.454	Carbohydrates : generalities
	.455	Mono(saccharo)ses. Monosaccharides. Simple sugars
	.3	Trioses, $C_3H_6O_3$. Glyceric aldehyde. Dihydroxy-acetone
	.4	Tetroses, $C_4H_8O_4$. Erythroses. Threoses
	.5	Pentoses, $C_5H_{10}O_5$
+	.52	Aldo pentoses
	.522	Ribose
	.524	Arabinose
	.526	Xylose
+	.56	Pentoses with more than 5 C atoms
	.562.4	Rhamnose
	.6	Hexoses, $C_6H_{12}O_6$
	.62	Aldohexoses
	.623	Glucose
	.62 4	Mannose
+	.627	Galactose
+	.63	Ketohexoses
+	.633	Fructose
	.635	Sorbose
	.7	Heptoses, $C_7H_{14}O_7$
	.8	Octoses, $C_8H_{16}O_7$
	.9	Higher moneses
	.458	Poly(sacchar)oses. Di-, tri-, poly-saccharides
	.2	Disaccharides, $C_{12}H_{22}O_{11}$, saccharose (sucrose) or cane-sugar. Maltose. Trehalose. Lactose, etc.
	.3	Trisaccharides, $C_{18}H_{32}O_{16}$. Dextrose or Grape-sugar. Raffinose or melitriose, etc.
	.5	Polysaccharides of the sugar class (in general)

	547.458.6	Starch and other reserve substances. Saccharification components
	.61	Starch or Amylum, $(C_6H_{10}O_5)_n$. Amylose. Amylopectin
	.63	Glycogen
+	.65	Inulin
	.68	Dextrin (Starch gum)
	.7	Gums and vegetable mucilages
	.8	Cellulose and other cell-membrane carbohydrates
	.81	Cellulose. Hydrated celluloses
	.82	Cellulose esters. Nitro-celluloses. Acetyl-celluloses. Viscose and viscoid
	.83	Amyloids
	.84	Ligno-celluloses and other crude natural celluloses
	.87	Hemi-celluloses. Lichenin
	.88	Pectins
	547.46	Polybasic carboxylic acids (saturated and unsaturated)
	.461	Saturated dicarboxylic acids (in general), $C_nH_{2n-2}O_4$, $(CH_2)_n(COOH)_2$ or $COOH(CH_2)_nCOOH$
	.2	Oxalic acid, $C_2H_2O_4$ or $(COOH)_2$. Oxalates. Oxamides
	.3	1,3 dicarboxy acids, $C_3H_4O_4$ or $COOH(CH_2)COOH$
+	'262	Malonic ester (diethyl malonate)
	.4	1,4 dicarboxy paraffin acids, $C_4H_6O_4$ or $COOH(CH_2)_2COOH$. Succinates. Succinamide, etc.
	.5	1,5 dicarboxy acids, $C_5H_8O_4$ or $COOH(CH_2)_3COOH$. Glutaric acid and homologues
	.6	1,6 dicarboxy acids, $C_6H_{10}O_4$ or $COOH(CH_2)_4COOH$. Adipic acid and its homologues
	.7	1,7 dicarboxy acids, $C_7H_{12}O_4$ or $COOH(CH_2)_5COOH$ Pimelic acid and its homologues
	.8	Dicarboxylic acids in which the carboxyls are separated by more than 5 atoms of Carbon. (1,8 and higher). Suberic acid. Azelaic acid. Sebacic acid, etc. Add total no. of C atoms or (CH_2) groups, e.g. 547.461.8C_{10} or $(CH_2)_8$ Sebacic acids
	.462	Unsaturated dicarboxylic acids. Fumaric, maleic, itaconic acids, etc.

	547.463	Polycarboxylic acids
	.1	Saturated tricarboxy acids, $C_nH_{2n-4}O_3$. Tricarballylic acid, $C_6H_8O_3$ and homologues
	.2	Unsaturated tricarboxy acids. Aconitic and haematinic acids, etc.
	.3/.6	Saturated tetracarboxy acids
	.7	Unsaturated tetracarboxy acids
	.8	Pentacarboxy acids
	.9	Hexacarboxy acids
	.464	Halo derivatives of the carboxylic acids. Chloro-acetic acids, etc.
	.465	Nitro and nitroso derivatives of carboxylic acids. Nitro-acetic acid, etc.
	.466	Amino derivatives of carboxy acids. Amino-acids → 547.96
	.1	Relation to natural products and natural sources. Betaines. Lactams. Polypeptides
+	.2	α-monoamino derivatives and amino-acids
	.22	Glycoll. Glycine and derivatives
	.23	Alanine
	.24	α-amino-butyric acid
	.25	Valine
	.26	Leucine. Isoleucine
+	.3	β-, γ-, δ-, etc. monoamino (fatty) acids.
+	.4	Diamino derivatives of the fatty acids
+	.42/.44	Diamino-acetic, -propionic and -butyric acids
	.45	Diamino-valeric acids. Ornithin
+	.46	Diamino-caproic acids. Lysine
+	.5	Amino derivatives of unsaturated monocarboxy acids
+	.6	Amino derivatives of saturated dicarboxy acids
	.63	Asparagic acids. Asparagine
	.64	Glutamic acid. Glutamine
+	.7	Amino derivatives of unsaturated dicarboxy acids
	.467	Hydrazino, azo, diazo, azido and hydroxyl-amino derivatives of carboxy acids
	.468	Carboxy-acid derivatives containing P, As, Sb and other non-metals directly linked with the C atoms Or use 547.46'11/'12
	.469	Organo-metallic derivatives of carboxylic acids Or use 547.46'13/'19

547.47 Hydroxy-acids. Hydroxy-carboxylic acids

.471 Monohydroxy carboxylic acids: generalities

.472 α-monohydroxy acids (aliphatic)

  .2 Glycolic acid and derivatives

  .3 Lactic acid. Lactates, etc.

.473 Other monohydroxy acids. Lactones

.474 Polyhydroxy derivatives of fatty acids. Hydroxylactones → 547.45

+ .3/.6 Acids with 3, 4, 5 and 6 Carbon atoms

  .3 Acids with 3 C atoms. Glyceric and glycidic acids

  .6 Acids with 6 C atoms. Gluconic and Mannonic acids

+ .7 Acids with 7 or more Carbon atoms

.475 Hydroxy derivatives of unsaturated monocarboxy acids

  .1 Hydroxy acids with one double bond. Enol forms 547.475.11/.12 ≙ 547.391/.392, e.g.

  .124 Ricinoleic acid

  .2 Ascorbic acid

+ .4 Hydroxy-acids with one triple bond. Ricino-stearolic acid

+ .5 Hydroxy-acids with 2 or more double bonds

.476 Hydroxy dicarboxylic acids.

+ .1 Malonic and alkyl-malonic acid derivatives. Dilactones

  .2 Monohydroxy succinic acids. Malic acid

  .3 α,α'-dihydroxy-succinic acids. Tartaric and racemic acids. Tartrates, etc.

  .6 Dihydroxy-adipic acid and homologues. Saccharic and mucic acids

+ .8 Hydroxy derivatives of unsaturated dicarboxy acids

.477 Hydroxy derivatives of polycarboxylic acids. Citric acid, citrates, etc.

547.48 Aldehydo- and keto-acids

.481 Aldehydo acids (in general). Glyoxalic acid. Aldehydo-maleic, -glutaric, -adipic, -azelaic acids, etc.

.482 Aldehydo-dicarboxylic acids

.483 Aldehydo-hydroxy acids. Glucuronic acid, etc.

	547.484	Keto acids (in general). Monocarboxy-ketonic acids
+	.1	Saturated keto-acids: generalities
+	.2	Saturated α -keto acids. ≙ 547.29, e.g.
	.23	Pyruvic (pyroracemic) acid
+	.3	Saturated β -keto acids. ≙ 547.29, e.g.
	.34	Aceto-acetic acid
+	.4	γ -keto acids. ≙ 547.29, e.g.
	.451	Laevulic acid
+	.5	δ -keto acids.
+	.7	Diketo (monocarboxy) acids
+	.8	Unsaturated monocarboxy keto acids
	.485	Dicarboxy-keto acids
	.2	Monoketo succinic oxalacetic acid
+	.4	Diketo succinic acids and homologues
	.6	Monoketo glutaric acid homologues. Keto-glutaric acids
	.486	Polycarboxy-keto acids (tri-, tetra-, etc.)
	.487	Ketenic acids
	547.49	Cyanogen and carbonic acid derivatives
	.491	Cyanogen (organic) compounds. Cf. 547.26
+	.3	Cyanic and isocyanic acid derivatives. Alkyl cyanates, etc.
	.4	Thiocyanic and isothiocyanic acid derivatives. Alkyl thiocyanates, 150 thiocyanates (mustard oils)
	.6	Cyanamide (carbo-diimide), NH_2CN
	.8	Cyanuric acid and its compounds. Melamine (Triamino triasine), $C_3H_6N_6$ → 547.87
	.492	Carbonic acid derivatives (in general). Cf. 546.264
	.493	Esters of carbonic acid. Alkyl carbonates
	.494	Sulphur derivatives of carbonic acid. Thiocarbonic acids, etc.
+	.1	Monothio carbonic acids, ~~ets~~ esters and salts
+	.2	Dithiocarbonic acids, esters & salts
	.254	Xanthogenic acid
	.3	Trithiocarbonic acids, esters & salts

	547.495	Ammonia derivatives of carbonic acid
	.1	Carbamic (Aminoformic) acid, NH_2COOH. Urethanes, $NH_2COOC_2H_5$
	.2	Urea (Carbamide), $CO(NH_2)_2$ and derivatives
	.5	Cyanogen and carbonic acid derivatives. Biuret, etc.
	.6	Ureides. Acetyl urea. Ureido-acids
+	.8	Urea derivatives of aldehydo and keto acids → 547.854
	.9	Guanidine, $HN=C(NH_2)_2$ and derivatives. Nitro-guanidine. Creatine. Creatinine. Arginine
	.496	Ammonia derivatives of thiocarbonic acids
	.3	Thiourea (Thiocarbamide), $NH_2-CS-NH_2$ and its derivatives
	.497	Hydrazine and diimido derivatives of carbonic & thiocarbonic acids. Semicarbazide, $NH_2CONH-NH_2$, semicarbazones
	.498	Carbonic acid derivatives of hydrazoic acid. Triazenes. etc.
	547.5	CYCLIC (RING) COMPOUNDS GENERALLY Iso- or homo-cyclic single- ring compounds
	547.51	Alicyclic compounds (in general). Polymethylenes
	.512	Trimethylene or cyclopropane group
+	.513	Tetramethylene or cyclobutane group
	.514	Pentamethylene or cyclopentane group
	.517	Heptamethylene or cycloheptane group
	547.52	Aromatic (aryl) compounds proper: generalities. Generalities on the benzene ring or nucleus. Cf. 547.14
+	.521	Aromatic character. Constitution of benezene. Stereochemistry of the benzene nucleus
	.523	Isomerism of the substitution products of benzene
	547.53	Aromatic hydrocarbons. Benzene and homologues, C_nH_{2n-6}
+	'02...	Dialkylarenes: '021 Ortho(*o*-)1,2; '022 Meta(*m*-)1,3; '023 Para(*p*)1,4
+	'03...	Trialkylarenes: '031 Vicinal (*v*-) 1, 2, 3; '032 Asymmetric (*a*-) 1, 2, 4; symmetric (*s*-) 1, 3, 5
+	'04...	Tetralkylarenes: '041 1,2,3,4; '042 1,2,3,5; '043 1,2,4,5

547•532 Benzene, C_6H_6

•533 Toluene, C_7H_8 or $C_6H_5-CH_3$

•534 C_8H_{10} hydrocarbons

•1 Ethyl benzene, $C_6H_5-C_2H_5$ or $C_6H_5-CH_2-CH_3$

•2 Dimethyl benzenes. Xylenes, $C_6H_4(CH_3)_2$

•535 C_9H_{12} hydrocarbons

•1 Propyl benzene, $C_6H_5-C_3H_7$ or $C_6H_5-(CH_2)_2CH_3$

•2 Methyl ethyl benzenes, $CH_3-C_6H_4-C_2H_5$

•3 Trimethyl benzenes, $C_6H_3-(CH_3)_3$

+ '033 Mesitylene or 1,3,5 trimethyl benzene

•536 $C_{10}H_{14}$ hydrocarbons

+ •1 Butyl benzenes, $C_6H_5-C_4H_9$ or $C_6H_5-(CH_2)_3CH_3$

•21 Methyl propyl benzenes, $CH_3-C_6H_4C_3H_7$. '023 Cymene (1,4 or p-)

•22 Diethyl benzenes, $C_6H_4-(C_2H_5)_2$

•3 Dimethyl ethyl benzenes, $(CH_3)_2-C_6H_3-C_2H_5$

•4 Tetramethyl benzenes, $C_6H_2(CH_3)_4$. '043 Durene (1,2,4,5)

•537 Saturated aromatic hydrocarbons with 11 or more C atoms

+ •1 $C_{11}H_{16}$ hydrocarbons. Amyl & pentamethyl benzenes, etc.

+ •2 $C_{12}H_{18}$ hydrocarbons. Hexyl. & triethyl benzenes, etc.

•26 Hexamethyl benzene, $C_6(CH_3)_6$

+ •3 $C_{13}H_{20}$ hydrocarbons. Heptyl benzenes, etc.

+ •4 $C_{14}H_{22}$ hydrocarbons. Octyl benzenes, etc.

+ •5 $C_{15}H_{24}$ hydrocarbons. Nonyl benzenes, etc.

+ •6 $C_{16}H_{26}$ Hydrocarbons. Decyl benzenes, etc.

+ •7 $C_{17}H_{28}$ hydrocarbons

+ •83/•89 $C_{18}H_{30}$ to $C_{24}H_{42}$ aromatic hydrocarbons

+ •9 $C_{25}H_{44}$ and higher aromatic hydrocarbons

547.538 Unsaturated hydrocarbons of the benzene series

+ .1 with one double-bond in a substituant
547.538.14 ≙ 547.534/.537, e.g.

.141 Styrene (phenyl ethylene), $C_6H_5-CH = CH_2$

+ .2 with one triple bond. ≙ 547.538.1, e.g.

+ .241 Phenyl acetylene, $C_6H_5-C \equiv CH$

+ .3 with two double bonds in one side-chain. Phenyldienes

+ .4 with one double bond in each of two side-chains

+ .5 with one double and one triple bond

+ .6 with three double bonds

.539 Halo derivatives of benzene hydrocarbons

+ .1 Fluorine derivatives. ≙ 547.539.2

.2 Chlorine derivatives. ≙ 547.539.1

+ .21/.29 Mono-, di-, tri-, tetra-, penta-, hexa-, hepta-, octa-, nona- (and higher) derivatives

.211.2 Chlorobenzene, C_6H_5Cl

.3 Benzyl chloride, $C_6H_5CH_2Cl$

.222.3 Benzal (benzylidene) chloride, $C_6H_5-CHCl_2$

.232.3 Phenyl chloroform, $C_6H_5-CCl_3$

.251.2 Pentachlorobenzene, C_6HCl_5

.261 Hexachlorobenzene, C_6Cl_6

.3 Bromine derivatives. Bromobenzene, etc.

.4 Iodine derivatives. Iodobenzene, benzyl iodide, etc.

547.54 Sulpho, nitroso and nitro-derivatives

.541 Aryl sulphonic acids, $R-SO_3H$
(Se and Te analogues by '123 and '124)

.1 Monosulphonic acids

+ .11 SO_3H group in the ring. ≙ 547.53, e.g.

.112 Benzene sulphonic acid, $C_6H_5-SO_3H$

+ .12 SO_3H group in the side-chain. ≙ 547.53, e.g.

.123 Benzyl sulphonic acid, $C_6H_5CH_2SO_3H$

.2 Disulphonic acids. .21/.22 ≙ 547.541.11/.12

.3 Tri-, tetra- and more-- substituted sulphonic acids

.5 Aryl sulphonic acids with substituents in all SO_3H groups
(except metal sulphonates & sulphonic esters)

.521 Sulphamide $SO_2(NH_2)_2$

547.542 Sulphinic acids (Se and Te analogues '123 and '124)

.543 Thiosulphonic acids

.544 Sulphones

.545 Nitroso compounds

.546 Nitro compounds with the NO_2 group in the ring. Nitrobenzene

.547 Nitro compounds with the NO_2 group in the side-chain.
Phenylnitro-methane, ethane, ethylene, etc.

.548 Halogenated nitro compounds. Chlornitrobenzenes, etc.

.549 Nitrosulphonic and halosulphonic acids

+ .1 Nitrosulphonic acids

+ .2 Halosulphonic acids

547.55 Non-oxygenated derivatives. Aryl amines, etc.

.551 Aniline and its derivatives

.1 Aniline (Phenylamine), $C_6H_5NH_2$

.2 Alkylanilines, C_6H_5NH-R. Diphenylamine. Triphenylamine

+ .4 Acid derivatives of aniline. Anilides, etc.

+ .41 Anilides of inorganic acids

.42 Anilides of aliphatic acids. Formanilide.
(Methyl)acetanilide. Diacetanilide. Thio-anilides,
phenyl amidines, etc.

.43 Phenyl derivatives of cyanogen compounds and anilides
of carbonic acid. Phenyl isocyanate . Phenylurethane

+ .5 Ring-substituted halo, nitroso, nitro and sulpho
products of aniline

.52 Aniline sulphonic acids. Sulphanilic acids. ≙ 547.541, e.g.

.525.21 Sulphanilamide

.55 Aniline sulphinic acids and sulphones

.552~~.552~~ Homologues of aniline

.1 Toluidine, $CH_3C_6H_4NH_2$

.2 Xylidine, $(CH_3)_2C_6H_3NH_2$

.553 Polyamines with aromatically linked amino groups

.1 Diamines with 2 primary amino groups. Phenylene.
Toluylene diamines

+ .2 Diamines with secondary and tertiary atoms, e.g.
amino-diphenylamine (semidine)

+ .3/.6 Tri-, tetr-, pent-, hex-amines

547.554 Aryl amines with aliphatically linked amine groups. Benzylamine bases

.555 Hydroxylamine derivatives of aromatic hydrocarbons. Phenyl-hydroxylamine, etc.

.556 Aryl azoxy. Azo, diazo and hydrazo compounds

.2 Azoxy compounds. Azoxybenzene. Azoxytoluenes

.3 Azo compounds. Azobenzene, etc.

.33 Aminoazo compounds. Azo dyes. Aniline yellow, etc.

.34 Oxy-azo compounds. Oxy-azo, Sudan dyes

.7 Diazo compounds. Diazo esters, etc.

+ .07 Diazotisation

.8 Hydrazines. Phenyl-, tolyl-, diphenyl-hydrazines

.9 Aliphatic-aromatic azo compounds. Hydrazones and formazyl compounds. Osazones

.557 Compounds with 3 or more directly linked N atoms in the molecule

.1 Diazoamino compounds. Diazoamino-benzene, -toluene, etc.

+ .2 Diazo-imides (azo-imides or triazo compounds)

547.56 Phenols. Quinines. Aromatic and phenol-alcohols

.562 Phenol (carbolic acid) or (mono)hydroxybene, C_6H_5OH

+ .3 Halo derivatives of phenol

+ .311/.315 Mono-, di-, tri-, tetra-, penta-halides

.4 Functional derivatives of phenol

.563 Cresols and phenol homologues with saturated side-chains

+ .1 Phenol homologues. 547.563.13/.17 ≙ 547.533/.537, e.g.

.13 Cresols ('021 Ortho-, '022 Meta-, '023 Paza-)

+ .14 Xylenols

.162.1 Thymol. Carvacrol

.564 Other substitution products of monohydric phenols

+ .1 Phenolsulphonic acids

+ .2 Nitrosophenols

.3 Nitrophenols. Picric acid. Dinitrocresols

.4 Aminophenols. Anisidine. Phenetidine. Phenacetine

	547.565	Dihydric and polyhydric phenols
	.2	Dihydric phenols. Dihydroxybenzenes, $C_6H_4(OH)_2$
+	'021	Catechol. Pyrocatechin (o - dihydroxybenzene)
+	'022	Resorcin(ol) (m - dihydroxybenzene). Styphnic acid. Orcinol
+	'023	Hydroquinone or quinol (p - dihydroxybenzene)
	.3	Trihydric phenols. Pyrogallol. Phloroglucinol
	.6	Hexahydric phenols. Hexahydroxybenzene
	.566	Phenols with unsaturated side-chains
	.1	Propenyl-hydroxybenzenes, etc. Anol and anethole
	.2	Propenyl-dihydroxybenzenes, etc. Eugenol. Safrole
+	.3/.4	Asarone and myristicin. Apiole and isoapiole
	.567	Quinones. Polyquinones
	.2	Simple (para)quinones. Benzoquinone, $C_6H_4O_2$
+	.3	Halo, amino & hydroxy quinones. Chloranil
	.5	Derivatives of the quinone-imides and quinone-dimides. Indophenols. Indamines. Aniline black
+	.6	Polyquinones and their derivatives
	.568	Aromatic alcohols and phenol-alcohols
	.1	Alcohols. Benzyl alcohol. Cinnamyl alcohol
	.5	Phenol-alcohols. Hydroxybenzyl alcohol
	.569	Aromatic derivatives of hydrogen sulphide. Thiophenols and mercaptans. Thiocresols
	547.57	Aromatic carbonyl compounds and their derivatives
	.571	Aromatic aldehydes. Benzaldehyde. Cuminaldehyde. Cinnamaldehyde
	.572	Aromatic ketones, di- and polyketones. Acetophenone
+	.573	Thiobenzaldehyde. Thioacetophenone, etc.
+	.574	Oximes. Benzaldoxime. Hydrazones. Anils. R-NH_2 compounds
	.576	Hydroxybenzaldehydes. Salicylaldehyde. Anisaldehyde. Vanillin. Piperonal, etc.
	.577	Hydroxy ketones. Hydroxy & dihydroxy acetophenone
+	.578	Aldehydo and keto alcohols

	547.58	Aromatic acids (mononuclear)
	.581	Monobasic acids with -COOH in the ring. ≐ 547.53, e.g.
+	.2	Benzoic acid
	.582	Acid derivatives with substituents in the -COOH group
	.1	Benzoyl chloride and analogues
	.3	Peroxides
	.4	Ammoniacal derivatives of benzoic and thiobenzoic acid. Benzonitrile. Benzamide. Dibenzamide. Hippuric acid
	.5	Hydroxylamine derivatives. Benzamidoxime, etc.
	.6	Diamino derivatives of aromatic acids
	.7	Azoimide derivatives. Benzazide
	.583	Ring-substituted halo, sulpho and N group derivatives
	.2	Sulphobenzoic acid. Saccharin (o-benzoic sulphinide)
+	.4	Nitroso and nitro derivatives
+	.5	Amino derivatives. Anthranilic acid
	.584	Dicarboxylic acids with the -COOH in the ring. Phthalic acid and anhydride. Isophthalic acid. Terephthalic acid. Phthalimide
	.585	Acids with 3 or more -COOH groups in the ring. Mellitic acids
	.586	Acids with all or some -COOH groups in side-chains
	.2	Monobasic phenylaliphatic acids. Phenylacetic acid. Phenylalanine, etc.
	.3	Polybasic phenylaliphatic acids
	.5	Monobasic acids with one double bond. Atropic & cinnamic acids.
	.6	Monobasic acids with triple bonds or several double bonds
	.7	Dibasic (dicarboxy) acids
	.587	Phenol-carboxylic acids
+	.1	Mono-hydroxy derivatives
	.11	Salicylic acid. Salicylide. Salol. Aspirin
+	.2	Di- and polyhydroxy derivatives
	.22	Orsellinic acid. Gyrophoric acid. Evernic acid
	.26	Trihydroxy benzoic acids. Gallic acid. Tannin. Pyrogallol-carboxylic acid. Phloroglucinol-carboxylic acid. Hydroxyhydroquinone carboxylic acid
+	.27	Tetrahydroxy-benzoic acids. Apiolic acids

+	547.587.3	Hydroxy derivatives of polybasic acids
+	.4	Hydroxy derivatives of acrboxy acids with -COOH in saturated side-chains
	.42	Hydrocoumaric acids. Melilotic acid. Tyrosine.
+	.43	Homogentisic acid. Hydrocaffeic acid. Iridic acid, etc.
+	.5	Hydroxy derivatives of carboxy acids with COOH in unsaturated side-chains
	.51	Coumarin. Coumaric acid
	.52	Dihydroxy-cinnamic acids. Caffeic acid. Umbelliferone
	.53	Trihydroxy-cinnamic acids. Sinapinic acid.
	.54	Piperic acids. Hydropiperic acids
	.588	Alcohol-acids. Phenol-alcohol acids
+	.1	with -OH and - COOH in the same side-chain
	.11	Mandelic acid
	.13	Phenyl-lactic acids. Tropic acid
+	.2	with -OH and -COOH in different side-chains. Phthalide. Phthalimidine. Isocoumarin
+	.3	Phenol-alcohol acids. Meconine
	.589	Aldehydo-acids. Keto-acids
+	.1/.2	Aldehydo acids with =CO and -COOH in same, in different side-chains
+	.4/.5	Keto acids with =CO and -COOH in same, in different side-chains
	547.59	Hydro-aromatic compounds. Hydrogenated benzenes, etc.
	.592	Hydrocarbons nad their halo, nitro & amino derivatives
+	.1	Saturated compounds. Cyclohexane series
+	.12	Cyclohexane
	.13	Halo derivatives
+	.2	Unsaturated compounds with one double bond. Cyclohexenes. Monochloro-toluene
+	.3	Unsaturated compounds with 2 double bonds. Cyclohexadienes.
	.593	Hydrobenzene derivatives containing -OH
+	.2	Ring alcohols and derivatives
+	.21	Cyclohexanol and derivatives
+	.22	Cyclohexanediol (quinitol) & derivatives
+	.23/.24	Cyclohexanetriol (phloroglucitol, etc.) and -tetrol
	.25	Cyclohexanepentol (quercitol) & derivatives
	.26	Cyclohexanehexol (inositol) & derivatives
+	.3	Cyclohexenols & derivatives. ≙ 547.593.2
+	.4	Cyclokmadhexadiene hydroxy derivatives. ≙ 547.593.2

547.594	Aldehydes and ketones
.1	Aldehydes. Cyclocitrals. Dihydrobenzaldehyde
.3	Saturated ketones. Cyclo-hexanone & -hexanedione
.4	Unsaturated ketones. Cyclo-hexenone. Irone. Ionone
.5	Quinols. Unsaturated keto-alcohols. Pseudo-phenols
.595	Hydro-aromatic carboxylic acids
.2	Monocarboxylic acids of cyclohexane. Quinic acid
.3	Cyclohexene monocarboxy acids
.4	Cyclohexadiene monocarboxy acids
.6	Dicarboxylic acids of cyclohexane. Hexahydrophtalic acid
.7	Cyclohexene dicarboxylic acids
.8	Cyclohexadiene dicarboxylic acids
.9	Hydro-aromatic polycarboxylic acids
.596	Hydro-derivatives of cymene. Monocyclic terpenes
.2	Saturated (monocyclic) terpenes or menthane derivatives. Terpin. Cineole, etc.
.4	Unsaturated (monocyclic) terpenes or menthane derivatives. Terpineol. Menthene, etc.
.7	Terpadienes & terpinenes (doubly unsat.). Menthadienes. Limonene (carvene). Carvone. Phellandrene. Sylvestrene
.597	Polycyclic terpene compounds (in general). Carane group. Thujones. Sabinols. Sabinene
.598	Pinane group. Pinocamphone. Pinenol. Isocarvene
.5	Pinenes
.599	Camphane or camphor group
.1	Saturated hydrocarbons and derivatives. Camphane, $C_{10}H_{18}$
.2	Unsaturated hydrocarbons, etc. Camphene. Bornylene. Fenchenes, $C_{10}H_{16}$
.3	Amines. Camphyl-, bornyl- and fenchyl-amines
.4	Alcohols. Borneol. Fenchyl alcohol
.6	Saturated ketones. Camphor, $C_{10}H_{16}O$ and derivatives
.7	Unsaturated ketones. Camphenone, etc.
.8	Derived acids

	547.6	POLYCYCLIC (MULTI-RING) ISOCYCLIC COMPOUNDS
	547.62	Uncondensed systems with directly linked rings. Polyphenyls
	.621	Diphenyl group (in general). Constitution, nomenclature
	.622	Diphenyl (phenyl benzene), $C_6H_5-C_6H_5$ and homologues
	.623	Phenols and quinones of the diphenyl series
	.624	Acids of the diphenyl series. Diphenic acid
	.625	Amino and azo compounds of the diphenyl group. Congo dyes. Benzidine, chrysamine and other dyes
	.626	Hydro-derivatives of diphenyl
	.628	Diphenyl-, triphenyl-, tetraphenylbenzenes
	.629	Tri-, tetra- and pentamethylene-phenyl compounds
	547.63	Uncondensed systems with indirectly linked rings
	.631	Diphenylmethane and phenylfulvene group
	.2	Diphenylmethane, $(C_6H_5)_2CH_2$ and its homologues
+	.3	Amino derivatives of diphenylmethane hydrocarbons
	.4	Phenols and alcohols. Benzylphenols
	.6	Diphenyl aldehydes & ketones. Diphenyl-acetaldehydes. Benzophenone. Diphenylmethane dyes. Auramine
	.7	Carboxy and hydroxy acids. Diphenyl-acetic acid
	.9	Phenylfulvene group
	.632	Triphenylmethane group (and dyes) in general
	.2	Triphenylmethane
	.3	Homologues of triphenylmethane. Triphenylcarbinol, etc.
+	.4/.6	Amino derivatives of the tiphenylmethane series
	.5	Malachite green group
	.6	Rosaniline group. Methyl violet. Fuschsine. Aniline blue
	.633	Oxy and hydro derivatives of triphenylmethane
	.4	Phenols. Rosolic acid. Aurine
	.6	Acids. Phtaleins. Phenolphtalein. Fluorescein. Eosin. Rhodamine, etc.
	.634	Tetraphenylmethane

547.636 Diphenylthane, diphenylethylene group (symmetrical). Dibenzyl (stilbene) group, $C_6H_5CH{=}CHC_6H_5$

.637 Polyphenyletahne series

+ .1/.4 Tri-, tetra-, penta-, hexaphenylethanes

.638 Higher polyphenyl-alkane series

.1 Diphenylpropane series

.2 Triphenylpropane series

.3 Tetraphenyl- and hexaphenylpropanes

.4 Diphenylbutane series. Dibenzylethane. Vulpic acid

.5 Triphenyl- and tetraphenylbutane series

.639 Compounds with benzene rings linked by aliphatic chains or cyclic systems

547.64 Condensed ring systems: generalities

.642 Spiranes

547.65 Dicyclic compounds generally. Naphthalene series

.652 Naphthalene, $C_{10}H_8$ and its homologues

.653 Sulphonic and nitro derivatives, etc. Naphthalene sulphonic and sulphinic acids. Nitro-naphthalene

.654 Non-oxygenated derivatives. Naphtylamines, etc.

.655 Hydroxy derivatives. Naphthols. Naphthaquinones

+ .1 Naphthols, $C_{10}H_7OH$. Dihydroxy-naphthalenes, etc.

+ .6 Naphthaquinones, $C_{10}H_6O_2$

.656 Aldehydes and ketones of naphthalene series

.657 Acids of the naphthalene series. Naphthoic acid

.659 Reduction products of naphthalene. Dihydro-naphthalene. Hydronaphthoic acids. Santonin group, etc.

547.66 Other condensed dicyclic systems

.661 Aromatic naphthalene derivatives. Phenyl-, and benzyl-naphthalenes. Dinaphthyl group, etc.

.664 Phentrimethylene group. Pseudo-phenyl-acetic acid

.665 Indene group. Methylindene. Hydrindene

.667 Phenheptamethylene group

547.67 Tricyclic (3-ring) compounds. Anthracene series

.672 Anthracene, $C_{14}H_{10}$ and its derivatives

- .1 Anthracene
- .5 Anthrahydroquinone. Anthranol. Chrysarobin, etc.

.673 Anthraquinone and its derivatives

- .1 Anthraquinone
- .5 Amino-anthraquinones
- .6 Hydroxyanthraquinones. Alizarin. Quinizarin. Hystazarin. Flavopurpurin

.674 Aromatic anthracene compounds. Anthraphenone, etc. Phenyl-anthracene

.677 Phenanthrene and pyrene-ketone group. Phenanthraquinones. Retene, etc. Cf. 547.678.3

.678 Tricyclic compounds with benzene rings linked to non-benzene rings

- .2 Acenaphthene group. Acenaphthene-quinone
- .3 Fluorene group. Retenone. Cf. 547.677
- .4 Naphthindene group
- .5 Pentanthrene group
- .6 Indacene group

547.68 Four- and more-ring compounds

.681 Pyrene group

.682 Naphthacene and naphthanthracene group

.683 Chrysene group

.684 Dinaphthanthracene group

.685 Picene group

.686 Fluoranthene group

.687 Di-indanonyl and di-indanyl

.688 Tristrimethylene

+ .689 Naphtho-fluorene, trinaphthylene benzene, truxene and other multi-ring isocyclic compounds

	547.7	HETEROCYCLIC COMPOUNDS GENERALLY → 547.8 (6- or more- member rings)
+	547.71	Generalities. Three- and four-member ring compounds
+	.717	Three-membered ring compounds
+	.718	Four-membered ring compounds
	547.72	Five- membered ring compounds (generally). Furan group
	.722	Furan, C_4H_4O. Homologues and non-oxy derivatives. Hydro, halo, nitro & amino furans
	.724	Carbonyl derivatives, fural or furfuraldehyde
	.725	Carboxy acids of the furans. Dehydromucic, pyrotritaric, carbo-pyrotritaric, methronic and furfuracrylic acids
+	.728	Condensed systems of furan with benzene or other rings. Coumarones
+	.729	Five-membered rings with 2 or more O atoms
	547.73	Thiophen group (Selenophen, tellurophen by '123 & '124)
	.732	Compounds with one thiophen ring. Thiophen, C_4H_4S
	.735	Condensed systems. Thionaphthen group
	547.74	Pyrrole group (generally).Uncondensed derivatives
	.741	Pyrrole, C_4H_4NH, and its derivatives
	.742	Homologues of pyrrole. Haemopyrrole
	.743	Non-oxy derivatives. Pyrroline. Pyrrolidine
	.744	Hydroxy derivatives of pyrrole
	.745	Carbonyl derivatives. Pyrrole aldehydes. Pyrrolidone
	.746	Pyrrole carboxylic and dicarboxylic acids
+	.747	Hydro carboxy acids of pyrrole. Proline
+	.748	Dipyrryl derivatives. C-phenyl pyrrole compounds
	547.75	Condensed systems with one pyrrole ring
	.752	Indole, C_8H_7N and its derivatives
	.753	Homologues of indole
	.755	C-hydroxy derivatives of indole. Indoxyl
+	.756	Carbonyl derivatives of indole. Oxindole. Isatin
	.757	Carboxylic acids of the indole series. Tryptophan
	.758	Indigo blue (and white). Di-indolyl, etc.

	547.76	Five-membered ring systems with one hetero-atom other than O, S or N
	547.77	Five-membered ring systems with two hetero-atoms others than only O and/or S. Azoles generally
	.772	Pyrazole, $C_3H_4N_2$, and its homologues
	.775	Carbonyl derivatives. Pyrazolone. Antipyrine
+	.776	Carboxylic acids of the pyrazole series
+	.778	Systems with several uncondensed rings. Carbo-diphenyloid linkage
+	.779	Condensed pyrazole systems. Indazole group
	547.78	Iminazole, oxazole and thiazole groups
	.781	Iminazole (glyoxaline), homologues and derivatives
+	.5	Histamine and other nitrogen derivatives
	.783	Carbonyl derivatives of iminazole. Hydantoin. Allantoin
	.784	Carboxy acids of the iminazole group. Histidine, etc.
+	.786	Isoxazole compounds
+	.787	Oxazole compounds
+	.788	Isothiazole group.
	.789	Thiazole group. Thiazoles, Se and Te analogues
	547.79	Five-membered systems with 3 or 4 hetero-atoms other than only O and/or S
+	.791	Triazole (1, 2, 3 triazole) compounds
+	.792	1, 2, 4 triazole compounds
+	.793	Systems with three hetero-atoms (1 or 2 N, 1 or 2 O)
+	.794	Systems with 3 hetero-atoms (incl. S and N). Thiuret. Methylene red. Piazothiols
+	.796	Systems with 4 hetero-atoms. Tetrazoles
	547.8	HETEROCYCLIC COMPOUNDS WITH 6- OR MORE-MEMBERED RINGS
	547.81	Pyran and penthiophen groups and their analogues
	.812	Pyrones. Simple pyrones & pyroxonium compounds
	.814	Benzopyran compounds. Chromones. Flavone, etc.
	.815	Xanthene compounds. Xanthone. Fluorene
+	.818	Penthiophen (thiopyran) or 1,4 Thian compounds. Se and Te analogues

	547.82	Pyridine compounds (in general), esp. uncondensed systems
	.821	Pyridine, C_6H_5N. Picolines. Lutidines
	.822	Non-oxy derivatives. Piperidene. Coniine, etc.
	.823	Hydroxy derivatives. Pyridone, &c.
+	.828	Systems with directly linked rings. Dipyridyl, dipiperidyl. Pyridyl-pyrrole
	.829	Systems with indirectly linked rings. Pyridoin. Papaveric acid. Stilbazole
	547.83	Condensed pyridine systems
	.831	Quinoline group. Quinaldine. Lepidine
+	.7	Hydroxy derivatives. Hydroxyquinolines. Carbostyril, etc.
+	.8	Carbonyl derivatives. Quinoline-quinone, etc.
+	.9	Carboxy acids of quinolines. Quinaldinic & cinchonic acids, etc.
	.832	Polycyclic quinoline compounds. Diquinolyl. Cyanines. Phenyl-quinoline. Atophan, etc.
	.833	Isoquinoline group. Hydrastine. Carbindigo, etc.
	.834	Other 2-ring systems (spirocyclic: ortho-, peri-condensed). Tropine. Ecgonine
	.835	Acridine group. Amino-acridines. Chrysaniline, etc.
	.836	Other 3-ring systems (spirocyclic, ortho-, peri-condensed). Phenanthridine. Anthrapyridine, etc.
	.837	4-ring systems (spirocyclic: ortho-, peri-condensed). Anthraquinoline. Quindoline. Apomorphine, etc.
	.838	5- or more-ring (condensed) pyridine systems. Quinacridine. Indanthrene. Flavanthrene, etc.
	547.84	Six-membered ring compounds with two hetero-atoms other than N
+	.841	Dioxan and its derivatives
+	.842	Dithian and its derivatives. Thianthrene
+	.843	Thioxan or oxthian
	547.85	Azines in general, pyridazines and pyrimidine groups
	.852	Pyridazines (1, 2 diazines)
	.853	Pyrimidine compounds in general. Cyanalkines, etc.

	547.854	Monocyclic oxygen derivatives of pyrimidine
+	.4	Uracil. Thymine. Hydro-uracil, etc.
+	.5	Barbituric acid. Veronal, etc.
+	.6	Alloxan. Dialuric acid, etc.
+	.81	Cytosine. Malonyl-guanidine. Purpuric acid, etc.
+	.83	Thio-uracil. Thio-barbituric acid, etc.
	.855	Systems with several uncondensed pyrimidine rings
	.856	Quinazoline and other condensed systems of pyrimidine and carbon rings
	.857	Purine group
	.1	Purine and its methyl derivatives
	.3	Hydroxypurines. Hypoxanthine. Desoxy-xanthine
	.4	Dihydroxypurines. Xanthine. Theophylline. Theobromine. Caffeine. Purone
	.5	Uric acid. Urates
	.7	Ketopurine imide compounds. Adenine. Guanine
+	.859	Other pyrimidine and hetero-ring condensed systems
	547.86	Pyrazine, oxazine and thiazine compounds
	.861	Pyrazine group (generally). Pyrazine. Piperazine
+	.863	Quinoxaline and other condensed systems
	.864	Phenazine group. Safranines. Indulines
+	.865	Other pyrazine and C-ring condensation systems
	.867	Oxazine compounds. Paroxazines. Phenoxazines
	.869	Thiazine, selenazine and analogues bodies. Thio diphenylamine. Methylene blue, etc.
	547.87	Six membered ring compounds with 3 hetero-atoms. Triazines. Oxy and S (thio) derivatives → 547,491.8
+	.872	1, 2, 3 triazine compounds. Benzazimide, etc.
+	.873	1, 2, 4 triazines. Guanzine, etc.
+	.875	Systems with O and N. Paraldimines. Oxdiazines
+	.876	Systems with S and N. Thialdines. Thiadiazines

	547.88	**Six-membered rings compounds with 4 or more hetero-atoms. Tetrazines, etc.**
	547.89	**Seven- or more-membered ring compounds**
+	.891	7-member rings with one hetero-atom
+	.892	7-membered rings with 2 or more hetero-atoms .1/.8 ≙ 547.81/.88
+	.895/.897	8-, 9-, 10-membered rings. Each ≙ 547.81/.88
+	.898	11- or more-membered (heterocyclic) rings
	547.9	NATURAL SUBSTANCES (OF UNKNOWN COMPOSITION OR UNDESIGNATED IN 547.2/.8) → 577.1; 615.2; 678.4
	547.91	**Substantially aliphatic substances.** Oils, waxes, gums, carbohydrates, glucosides
	.912	Hydrocarbons (natural, of carotene, petroleum, etc.) → 549.88; 665.6
	.913	Essential oils. Sesquiterpenes → 547.59; 668.5
	.2	$C_{15}H_{29}$, sesquiterpenes. Zingiberine. Selinene. Cadinene. Cedrene
	.3	$C_{15}H_{26}O$, sesquiterpenic alcohols. Farnesol. Nerolidol. Eudesmol, etc.
	.5	Other sesquiterpenes and derivatives. Azulene, etc.
	.6	Diterpenes and other essential oils. Hydrocarbons
	.7	Non-nitrogenous substances. Jasmone. Muscone. Civetone
	.914	Plant juices. Saps. Balsams. (Oleo)resins. Gums, etc. → 668.3/.4
	.2	Resinic acids (from conifers). Abietic acid, etc.
+	.5	Resin esters, resinates. Resenes
	.915	Fats. Fatty oils. Lipids. Lipoids → 547.92; 665.1/.3
	.916	Waxes → 665.1/.3
	.917	Carbohydrates (natural). Cf. 547.45
	.918	Glucosides. Amygdalin. Hesperidin. Digitalin. Coniferin, etc.

	547.92	Sterols. Cf. 547.95
	.922	Cholesterol and esters. Lanolin
+	.925	Other zoosterols
+	.926	Phytosterols. Ergosterol, etc.
	547.93	Bile substances: acids, salts, pigments. Cf. 547.97
	.931	Coupled bile acids. Glycocholic acid, etc.
	.932	Non-hydrolysable acids. Cholic acid, etc. Lithofellinic acids
	.933	Derived products. Cholanic acid, etc.
	.937	Bile pigments. Bilirubin. Biliverdin. Bilifuchsin
	547.94	Alkaloids (natural, not designated in 547.7/.8
	.942	Quinine bases
	.943	Papaveraceous bases. Chelidonine
+	.944	Various plant alkaloids
	.1	Strychnine bases (Strychnos nux vomica)
	.2	Curare. Urare. Curine
	.3	Solanaceous bases
	.5	Coca bases
	.6	Colchicaceous bases. Colchicine. Cevadine. Veratrine
	.7	Aconite bases. Aconitine
	.8	Rutaceous bases. Pilocarpine. Harpine
	.9	Calabar Bean bases. Physostigmine (Eserine)
	.945.1	Ergot alkaloids. Ergotoxine. Ergotinine
	.2	Ricinine
	.3	Yohimbine
	.947	Alkaloids of animal origin. Ptomaines
	547.95	Nerve (tissue) substances. Cf. 547.92
	.952	Cerebrosides. Sphingosine
	.953	Phosphatides. Lecithin
	.954	Protagon

547.96	Proteins. Cf. 547.466
.962	Simple proteins
.1	Protamines. Salmine, etc.
.2	Histones
.3	Albumins. Serumalbumin. Lactalbumin, Ricin
.4	Globulins of animal origin. Fibrinogen. Myogen, etc.
.5	Globulins of plant origin
.6	Glutelins. Glutenin. Oryzenin
.7	Prolamines. Gliadin. Hordein. Zein
.9	Sclero-proteins. Collagens. Keratin. ~~Fibreium~~ Fibroin. Sericin. Spongin
.963	Compound or conjugate proteins. Proteids
.1	Glucoproteins. Mucin. Mucoid
.2	Phosphoproteins. Casein. Vitellin. Ichthulin
.3	Nucleoproteins. Nucleic acids
.4	Chromoproteins. Haemoglobin
.964	Protein derivatives. Proteoses. Peptones. Poleptides
.965	Amino-acid decomposition products of proteins → 547.466
547.97	Natural pigments. Cf. 547.93
+ .972	Xanthone, flavone & flavonol pigments
.1	Xanthone pigments. Gentisin
.2	Flavone pigments
.3	Flavonol pigments. Quercetin. Quercetin. Xantho rhamnin. Rhamnetin. Rhamnazin, etc.
.973	Anthocyanins. Cyanidin. Delphinidin
.974	Brazilin. Haematoxylin
.975	Cochineal (Carmine), Kermes and Lac dyes
.976	Anthracene pigments (natural). Purpurin. Cf. 547.67
.977	Algal pigments. Litmus
.978	Indigo dyes (natural), etc. Berberine. Indican. Isatan. Tyrian purple

547•979•3	Safran
•4	Curcumin
•7	Chlorophylls. Porphyrins
•8	Xanthophyll. Carotene
547•98	Tannins. Gallotannins. Catechol-tannins
547•99	Other natural substances
•991	Bitter substances. Aloin. Santonin. Picrotoxin
•992	Various plant substances. Humic acid. Lignin
•993	Poisons of animal origin. Cantharidin. Venins, etc.
•994	Urochrome. Urobilin. Uroerythrin
•995	Chitin. Heparin. Hyaluronic acid, etc.
•996	Other non-nitrogenous substances of animal origin

548/549 MINERALOGICAL SCIENCES

	548	CRYSTALLOGRAPHY
	-1	State of substance. ≙ 54-1
+	-144	Mesomorphous (paracrystalline) state
	548.0	General crystallography. Crystallology
	:53	Physical crystallography. Crystal physics
	548.1	Mathematical crystallography. Crystal systems, laws, theory of symmetry → 548.7
	:51	Mathematical crystallography. Mathematical study of crystalline form
	.02	Crystalline systems
	.021	Physically isotropic crystals. Regular (cubic) system
	.022	Tetragonal system
	.023	Hexagonal system
	.024	Trigonal system
	.025	Rhombic system
	.026	Monoclinic system
	.027	Triclinic system
	548.11	Fundamental laws
	.111	Law of the constancy of interfacial angles (Romé de Lisle)
	.112	Intersection of axes
	.113	Law of simple indices (Hauy)
	.114	Indices. Parameters
	.115	Crystal zones
	.12	Theory of symmetry. Theory of original forms in general
	.121	Rotation (axes of symmetry)
	.122	Reflection. Planes of symmetry
	.123	Inversion. Centre of symmetry
	.124	Rotary reflection (rotary reflection planes)
+	.15	Combinations. Goldschmidt's complication rule

	548.2	Crystalline overgrowths, aggregates and twins
	.21	Ingrowing crystals. Crystal groups
	.22	Upgrowing crystals. Crystal druses
	.23	Crystalline aggregates. Homogenous aggregates
	.231	Aggregate forms. Oolites, spherulites, stalactites, etc.
	.232	Structure of crystalline aggregates: columnar, foliate, dendritic, etc.
	.24	Twins. Twinning. Multiple twinning
+	.248	Artificial twinning. Pressure twins
	.25	Regular compound growth of crystals of different substances. Heterogenous aggregates
	548.3	Crystal chemistry. Chemo-morphological properties
+	.31	Generalities. Crystal (space) lattices
	.312	Regular lattice types: ionic (electrovalent)
	.313	Special lattice types: mixed crystals. Solid solutions
	.314	Distances between atoms
	.315	Lattice cooordination
	.32	Isomorphism. Morphotropism
	.33	Polymorphism → 541.7
	548.4	Irregularities in crystals. Inclusions. Dislocations. Occlusions. Negative crystals Cf. 539.2
	548.5	Formation. Growth and solution of crystals
	.51	Crystal formation. Initial action. Crystal nuclei
	.517	Crystal-forming capacity
	.52	Crystal growth mechanism. Diffusion in solid state. Rate of growth
	.53	Recrystallization. Succession. Recurrence
	.54	Habit and appearance of crystals
	.55	Monocrystals. Mono-crystalline forms
	.56	Liquid crystals. Crystalline liquids. Water of crystallization (hydration)
	.57	Special properties of large crystals
	.58	Solution
	548.6	Pseudomorphism and pseudomorphs (crystalline)

548.7	Fine, molecular structure of crystals. Discontinuum theory → 548.1
.71	Geometrical discontinuum theory
.711	Chain groups
.712	Net groups. Reticular systems
.713	Space groups. Cf. 548.1.02
.718	Reciprocal lattice
.73	X-ray crystal structure and properties → 539.26; 621.386
.732	X-ray optics. Bragg law
.734	X-ray methods
.2	Laue method and photographs
.3	Powder methods, e.g. Debye-Scherrer method
.4	Rotation axes methods
.5	X-ray goniometric methods
.6	Convergence methods (Kratky)
.8	Intensity determination
.735	Crystal structure and texture determination. Preferred orientation
.736	Structure of elements, inorganic compounds, and alloy phases. Intermetallic compounds
.74	Electron-beam and cathode-ray crystallography
.75	Infra-red crystallography

	549	MINERALOGY. SPECIAL MINERALOGY → 553
+	(1/9)	Regional mineralogy
	-1	State of substance. ≙ 54-1
+	-144	Mesomorphous state
+	-161	Amorphous state. Glassy state
+	-162	Crystalline state
+	-17	Allotropic state (stable, metastable)
	549.01	Occurrence and formation, abundance and distribution of minerals. Cf. 553 (Economic minerals)
	.02	Composition of minerals
	.07	Synthesis. Cf. 666.232
+	.09	Use of minerals
	.091	Precious stones. Gemmology → 553.8; 622.37; 671.1; 739.2
	549.1	Determination of minerals and their properties Cf. 552.12; 553.1
	.12	Microscopic mineralogy (thin sections)
	549.2	Elements in a free state. Carbides. Borides. Phosphides. Nitrides
	.21	Carbon group. Diamond. Graphite
	.22	Tantalum. Phosphorous
	.23	Sulphur. Selenium. Tellurium
	.24	Arsenic. Antimony. Bismuth
	.25	Group IV heavy metals. Tin. Lead
+	.26	Iron group
	.261	Iron
	.263	Nickel. Ferronickel
	.27	Platinum group
	.281	Copper
	.282	Silver
	.283	Gold
	.291	Mercury

549.3 Sulphides. Sulpho-salts.

Corresponding selenium and tellurium minerals

	.31	Non-metal sulphides, selenides and tellurides
	.312	Monosulphides. Realgar
+	.313	Sesquisulphides
	.1	Orpiment
	.2	Antimonite. Stibnite
	.3	Bismuthite
	.32/.33	Metal sulphides, selenides and tellurides
+	.321	Zinc sulphide group
	.13	Sphalerite or zincblende (blende, Black Jack)
+	.322	Iron, cobalt and nickel sulphides, etc.
	.21	Pyrrhotite
	.23	Niccolite
+	.324/.326	Iron disulphides and related sulphides
	.31	Pyrites (iron pyrite)
	.61	Marcasite (White tron pyrite)
	.325.2	Molybdenite
+	.328	Lead sulphides, etc.
	.1	Galena. Lead glance
+	.331	Sulphides, etc. of the monovalent heavy metals
	.11	Argentite. Silver glance
	.21	Chalcocite. Copper glance
	.35	Sulpho-salts and corresponding selenium and tellurium compounds
+	.351	Sulpho-ferrites and related sulpho-salts
	.11	Bornite (erubescite, peacock ore, Variegate Copper ore)
	.12	Chalcopyrite or copper pyrite
+	.352	Sulpho-arsenites, antimonites and bismuthites
	.211	Chalcostibnite or wolfsbergite (copp er antimony glance)
	.26	Zinckenite. Lead antimony glance
	.27	Sclsroglase. Lead arsenic glance
	.354.11	Proustite. Arsenic silver blende
	.12	Pyrargyrite. Antimony silver blende
	.42	Bournonite
	.355	Tetrahedrite ('Fahlerz') group. Grey copper ore
	.36	Sulpharsenates. Sulphantimonates. Sulphovanadates
	.37	Sulphostannates and sulphogermanates
	.371	Stannite

549.4 Haloid salts. Halides and oxy-halides

	.45	Simple halides
+	.451	Halides of the alkali metals
	.1	Halite. Rock salt
	.2	Sylvite
+	.453	Mercury halides. Calomel
+	.454	Halides of non-isomorphous divalent metals
	.2	Fluorite. Fluospar
	.31	Corrosive sublimate. Mercury silver chloride
+	.455	Halides of trivalent and tetravalent metals
+	.456	Hydrated simple halides
+	.46	Double halides
+	.461	Anhydrous double fluorides
	.12	Cryolite
+	.462	Hydrated double fluorides
+	.463	Anhydrous double chlorides
+	.464	Hydrated double chlorides
	.1	Carnallite
	.47	Oxyhalides
+	.471	Oxyfluorides
+	.472	Oxychlorides

549.5 Oxygen compounds

	.51	Oxides (mineral)
+	.512	Oxides of group VI non-metals
	.1	Tellurite
+	.513	Non-metal sesquioxides
	.1	Cubic series. Arsenolite. Senarmontite
	.514	Silicon, titanium and zirconium oxides
	.5	Silicon dioxide. Silica
	.51	Quartz
	.52	Chalcedony
	.53	Opal
	.56	Tridymite
	.58	Cristobalite
	.6	Titanium dioxide. Anatase. Rutile
	.81	Zircon
	.87	Uraninite. Pitch blende. Cf. 549.755.35

	549.516	Divalent metal oxides
+	.11	Periclase
	.22	Zincite
	.517	Trivalent metal sesquioxides
	.1	Corundum
	.2	Haematite
+	.518	Monovalent metal oxides
	.1	Cuprite
	.519.4	Massicot (lead monoxide)
	.52	Hydroxides (mineral)
	.521.3	Sassolite. Boric acid
	.4	Aluminium compounds. Diaspore, etc.
	.5	Iron compounds
	.61	Manganite
	549.53	Oxysulphides. Kermesite or pyrostibnite
	549.6	Silicates. Titanates. Zirconates. Stanates
	.61	Basic silicates. Aluminium silicates
+	.611	Hyperbasic silicates
	.11	Sapphirine
	.21	Staurolite or Staurotide
	.612	Tourmaline group
+	.613	Andalusite group
	.1	Andalusite. Chiastolite
	.2	Fibrolite or sillimanite
	.3	Kyanite (cyanite, disthene)
	.4	Mullite
	.614	Topaz group. Topaz
	.618	Epidote group. Zoisite. Allanite (orthite), etc.
	.619.1	Idocrase (vesuvianite) group
+	.33	Hemimorphite (hydrous Zn silicate, Calamine in U.S.A.) Cf. 549.742.115

	549.62	Orthosilicic acid salts
	.621	Normal orthosilicic acid salts. Feldspathoids, etc.
+	.1	Olivine group. Forsterite. Tephroite, etc.
	.14	Chrysolite (common olivine). Peridot
+	.15	Fayalite (iron-olivine)
+	.4	Nepheline group
+	.42	Kaliophilite or phacellite, etc.
	.43	Nepheline. Elaeolite
+	.5	Sodalite group
	.51	Sodalite
+	.52	Nosean or noselite
	.53	Haüyne or haüynite
	.55	Lasurite
	.9	Garnet group. Grossularite. Andradite. Melanite. Uvarovite. Spessartite. Pyrope, etc.
	.623	Acid orthosilicates and related minerals
	.1	Dioptase group
+	.2	Prehnite
	.5	Mica group. Muscovite. Biotite. Lithia mica (lepidolite)
+	.59	Vermiculite group
	.6	Clintonite group. Maragarite, etc.
	.7	Chlorites. Prochlorite. Clinochlore. Penninite. Serpentines. Antigorite. Chrysotile (Canadian asbestos) Cf. 549.643.2
	.8	Talc group. Steatite. Soapstone. Saponite. Meerschaum (sepiolite), etc.
	.9	Kaolin group. Kaolinite. Pyrophyllite. Dickite. Nacrite, etc.
+	.63	Intermediate silicates
	.632	Cordierite group. Cordierite (Iolite)
	.634	Astrophyllite group
+	.64	Metasilicates and metatitanates
+	.641	Perovskite and ilmenite group
+	.641.1	Perovskite
	.23	Ilmenite

+	549.642	Pyroxene-augite group
+	.1	Ortho-pyroxenes. Enstatite. Bronzite. Hypersthene
	.2/.4	Monoclinic pyroxenes. Augite. Diallage, etc.
	.21	Diopside
	.25	Black augite
	.26	Jadeite
+	.27	Spodumene or triphane
+	.3	Aegirine group. Acmite
+	.4	Wollastonite (Tabular spar) group
+	.5	Triclinic pyroxenes. Rhodonite. Babingtonite, etc.
+	.643	Amphiboles. Hornblende group
+	.1	Orthorhombic amphiboles. Anthophyllite
	.2/.3	Monoclinic and asbestos amphiboles. Cf. 549.623.7
	.22	Actinolite
	.25	Hornblende (common hornblende)
	.645	Leucite
	.646	Beryl group. Emerald. Aquamarine
	.65	Polysilicic acid salts
	.651	Fel(d)spar group: potash, soda, soda-lime, etc.
	.11	Orthoclase. Potash felds. Adularia
	.12	Sanidine
	.2	Plagioclases. Soda and lime feldspars. Albite. Andesine. Labradorite. Anorthite
+	.652	Scapolite or wernerite group
	.655	Titanite group. Sphene
	.657.13	Benitoite
	.67	Zeolites. Natrolite. Mesolite. Heulandite. Harmotome. Chabazite, etc.
	.691	Amorphous silicates
	.1	Anhydrous amorphous silicates. Natural glass. Billitonites
	549.7	Other oxyacid salts
	.73	Trivalent element salts. Borates. Aluminates. Ferrites. Arsenites. Antimonites, etc.
	.731	Anhydrous aluminates. Borates, etc.
	.1	Cubic series. Spinel. Magnetite. Chromite
	.2	Chrysoberyl
	.6	Boracite

	549.732	Hydrated borates. Borax
	.74	Tetravalent element salts. Carbonates. Selenites. Tellurites. Manganites. Plumbates
+	.742	Normal anhydrous carbonates of divalent metals
	.111	Calcite. Calcspar
	.112	Magnesite
	.114	Siderite
	.115	Smithsonite (Zn carbonate, 'Calamine' in U.K.) Cf. 549.619.33
	.121	Dolomite
	.21	Aragonite. Flos ferri (Calcium carbonate)
+	.22	Strontianite (Strontium carbonate)
+	.23	Witherite (Barium carbonate)
+	.24	Cerussite (Lead carbonate)
+	.743	Anhydrous basic carbonates (of copper, etc.)
	.12	Malachite
	.13	Azurite (chessylite)
+	.744	Fluoro- and chlorocarbonate minerals
+	.746	Hydrated carbonate minerals
+	.747	Selenites and tellurites (minerals)
+	.748	Manganites and plumbates. Braunite. Red-lead (minium), etc.
	.75	Pentavalent element salts. Nitrates. Iodates. Phosphates. Arsenates. Antimonates. Vanadates
+	.751	Nitrates and iodates of mono- and divalent metals
	.11	Sodium nitrate. Chile saltpetre
	.12	Potassium nitrate. Saltpetre
+	.752/.757	Phosphates. Arsenates. Antimonates. Vanadates. Niobates. Tantalates
+	.1	Salts Orthoacid
+	.13	Beryllonite. Lithiophilite. Triphylite
+	.14	Normal trivalent metal salts. Xenotime. Monazite, ect.
+	.2	Pyro-acid salts. Microlite. Yttrotantalite, etc.
+	.3	Meta-acid salts. Tapiolite. Tantalite. Columbite
	.753.1	Apatite group. Pyromorphite. Mimetite. Vanadite
+	.35	Tarbuttite
+	.61	Lazulite

+	549.755	Hydrated phosphates, arsenates, vanadates, etc.
+	.1	Acid salts. Hewwettite, etc.
+	.2	Normal hydrated salts (minerals)
+	.23	Vivianite group. Symplesite. Erythrite. Variscite
+	.3	Basic hydrated salts (minerals)
	.346	Turqoise
+	.35	Uranite. Torbernite. Autunite. Cf. 549.514.87
	.76	Hexavalent element salts. Sulphates. Chromates. Molybdates. Tungstates, etc.
+	.761	Anhydrous normal salts, sulphates, etc.
	.22	Glauberite
	.31	Anhydrite
	.33	Celestite
	.34	Barytes
+	.35	Anglesite
+	.4	Chromates of divalent metals. Crocoite
+	.5/.6	Molybdates and tungstates. Wulfenite. Scheelite. ~~Wolframite~~
+	.62	Wolframite
+	.762	Basic anhydrous salts. Alunite(alumstone), etc.
+	.766	Hydrated sulphates and uranates
	.13	Mirabilite. Glauber salt
	.21	Gypsum
	.311	Kieserite
+	.341	Epsomite. Epsom salts
+	.8	Hydrated uranates. Cf. 549.755.35
+	.767	Hydrated (double and complex) sulphates. Kalinite
	.768.1	Kainite
	549.8	Organic minerals. Cf. 553.9
	.88	Hydrocarbon minerals
	.882	Ozokerite, etc.
	.883	Oxygen-containing transformation products. Asphalt, etc.

	549.89	Fossil resins and organic acid salts
	.892	Fossil resins
	.1	Amber. Succinite
+	549.9	Minerals according to crystallographic, genetic, optical and other (physical) criteria
+	.902	Crystallographic classification of minerals ≙ 548.1.02
+	.903	Classification according to optical and other physical properties → 53; 535, etc.
+	.905	Classification of minerals from the genetic aspect

55 EARTH SCIENCES. GEOLOGY. GEOPHYSICS. METEOROLOGY

→ 502.76

	55(1)	Regional geology	
	55.006	Geological reserves. *Cf.* 502.76	
	550	COLLATERAL SCIENCES. GEOPHYSICS, etc.	
	550.2	Geoastronomy → 523; 525	
	550.3	Geophysics → 525; 551.15	
	(100)	International work. International Geophysical Years	
	550.31	General geophysics	
	.311	Geophysical evolution and structure	
	.312	Gravity. Isostasy. Density and gravity distribution → 528.27	
	.32	Aggregates. Phases	
	550.34	Seismology	
+	.01	Theory, models, research and development	
+	.03	Seismological programmes, systems & equipment	
+	.034	Observatories, stations, services & networks	
+	.036	Housing equipment. Shelters, laboratories	
+	.037	System auxiliary equipment: telemetering, timing,etc.	
+	.038	Seismograph systems: amplifiers, recorders,detectors	
+	.04	Network design and standards. Scales. Arrays	
+	.05	Kinds of records, materials and operations	
+	.06	Seismic identification, location & detection	
+	.09	Special characteristics of waves, media & disturbances	
+	.094	Behaviour of waves, properties & processes → 550.344	
+	.097	Media properties → 550.347	
+	.098	Characteristics of disturbances → 550.348	
x		.340/342 (Observations, phenomena); s. 550.34.0 & 550.348	x
+	.343	Prediction of natural seismic phenomena	
+	.4	Seismic mapping. Isoseists. Homoseists	
+	.6	Prediction methods: long-range, short-range	
+	.344	Wave types related to seismology	
+	.094	Behaviour, properties, processes	
+	.4	Propagation (through media), attenuation, etc.	
+	.6	Arrival and period. Arrival time	
+	.7	Wave processes: acceleration, emergence angle	
+	.8	Wave properties: pressure, impulse, amplitude	
+	.9	Wave kinds: longitudinal, rotational, transverse	
+	.2	Seismic signal effects : azimuthal variations, etc.	
+	.3	Special waves: channel, standing, shock, T-phase, flexural	
+	.4	Marine and sea waves (seismically caused). Tsunamis	
+	.5	Surface waves: ground, Rayleigh, Stoneley, etc.	
+	.6	Body waves (class by conventional letter symbols)	
x		.345/346 (Seaquakes, earthquake effects); s. 550.348/349	x

+	550.347	Transmission media (of seismic waves)
+	.097	Media properties: iso-,anisotropic, elastic, etc.
+	.2	Seismic anomalies: orographic, fault. Shadow zones
+	.4	Discontinuities (in transmission media)
+	.6	Media .62 Crust .64 Mantle .66 Core
+	.348	Seismic disturbances, earth and extraterrestrial
+	.098	Characteristics of seismic disturbances
+	.2	Depth of focus: normal, shallow, deep
+	.3	Source magnitude .32 Macroseismic .33 Tremors
+	.4	Source location .42 Surface .43 Underground .44 Underwater .45 Atmosphere
+	.5	Epicentral area, zone. Epicentrum
+	.6	Time distribution .62 Swarms .64 Seismicity
+	.2	Source mechanism: anaseismic, kataseismic
+	.3	Extraterrestrial disturbances. Moonquakes
+	.4	Terrestrial (earth) disturbances or events
+	.42	Man-made: cultural noise, thumpers, explosions
+	.43	Natural: earth noise, shocks, rockbursts, etc.
+	.436	Earthquakes. Seaquakes
+	.349	Earthquake surface effects: displacements, damage
+	.2	Water-level fluctuations.Seismic seiches.Hydroseisms
	550.35	Terrestrial radiation
		→ 550.37; 551.21
	550.36	Terrestrial energetics and thermodynamics
		→ 525.21/.22 ; 551.511
	.360	Observation and measurement techniques
	.361	Internal heat of the Earth. Temperature variations with depth
	.362	Conductivity of rocks, of the Earth's crust
	.367	Sources of the Earth's energy. Potential energy of the Earth
	550.37	Terrestrial electricity. Earth currents
		→ 525.23; 550.387
	.370	Observation and measurement techniques
	.371	Earth's electric field (in general)
	.372	Conductivity, dielectric properties of Earth's crust
	.378	Radioactivity in the ground or soil
	550.38	Terrestrial magnetism. Geomagnetism
		→ 525.24
	.380	Geomagnetic technique, methods & equipment
	.2	Magnetic observatories (fixed structures)
	.8	Magnetic instruments
	.84	The compass and mobile magnetism. Deviation and compensation. Cf. 538.74
	.382	Surface features of the (steady) field. Magnetism of rocks and minerals
	.383	Underlying plan. Magnetic equator, axis, moment, etc.

550.383.3 Magnetic poles and dipoles of the earth
.4 Dipole field properties. Uniformly magnetized sphere
.384 Origin and secular change of field. Migration
of poles. Magnetic axis & moment changes
.385 Transient magnetic effects: variations, fluctuations, etc.
+ .2 Local time and seasonal fluctuations
.4 Magnetic storms
.386 Magnetic activity, fluctuations, quasi-persistence
.387 Earth currents (magnetic effects)
→ 550.37
.388 Overhead activation phenomena of ionosphere
Sounding technique, etc. *Cf.* 551.510.535;551.594
.2 Ionosphere: influence, distribtion
.8 Luminous manifestations, auror a .
.389 Magnetic surveys, charts, results, etc.
(100) International work, e.g. Polar year 1932-33

550.4 Geochemistry *Cf.* 552

.41 Physico-chemical actions. Colloidal phenomena
.42 Relative abundance, occurrence and distribution
of the elements in the Earth. *Cf.* 546.01
.43 Occurence of compounds and mixtures in the earth
.46 Action of water and of the atmosphere
→ 551.311.2/.3

550.7 Geobiology. Geological actions of organisms

.72 Action of lower organisms, microorganisms
.73 Actions of plants
.74 Action of animals
.75 Human influence, actions of man

550.8	Practical, Applied geology. Fieldwork. Prospecting → 528.7/.9 esp. 528.94;622.1;778.35
.81	Simple exploration. Topographical surveying. Geomorphological investigation
.82	Mechanical methods
.822	Drilling. Boring. Coring, etc. Cf. 622.24
.824	Boulder investigation
.83	Physical methods of prospecting
.831	Gravity determination. Variometric methods
.834	Vibrational, seismic and accustic methods
+ .835	Radiometric methods of prospecting.
.837	Electrical methods of prospecting. Electrical coring
.838	Magnetic methods of prospecting
.84	Chemical, geochemical methods of prospecting
.85	Petrographic investigation. Cf. 552.1
886	Palaeontological methods of prospecting. Cf. 56.02
.87	Biological and psychical methods. Divining, etc.
.89	Experimental geology. Laboratory and small-scale reproduction of geological phenomena
550.9	Other general geological problems
.93	Geological dating and time measurement. Radioactive isotope methods: Ge, Pb, Radio-Carbon, etc.
551	GENERAL GEOLOGY. METEOROLOGY, etc.
551.1/.4	GENERAL AND PHYSICAL GEOLOGY
.1	Form, structure, origin of the earth
.11	General shape and form of the earth. Lithosphere
.12	Theories of the origin of the Earth
.14	Solid crust. Lithosphere
.15	Layers between the lithosphere and barysphere
.16	Core. Barysphere

551.2/.3 Geodynamics

551.2 Internal geodynamics. Endogenous processes. Vulcanology. Tectonics, etc.

;502.76	Protection of volcanic formations
.21	Volcanoes. Extrusions. Eruptions. *Cf.* 550.34
.211	Areal eruptions
.212	Fissure eruptions
.213	Central eruptions. Shield volcanoes
.214	Underwater eruptions
.217	Volcanic products: lava, ash, gases
.22	Intrusions. Batholiths, veins, vents, sills, apophyses, laccoliths, etc. *Cf.* 552
v.23	Fumaroles. Solfataras. Geysers (gushers). Hot springs. Mofetes. *Cf.* 551.311.8;553.78
.24	Tectonic processes and phenomena
.240	Orogenesis in general. *Cf.* 551.43
.241	Crust thickness, movement. Diastrophism. Continent-building processes (Wegener)
.242	Oscillations. *Cf.* 550.34
.243	Dislocations. Faults. Folding. Overthrusts
.244	Epeirogenesis. Surface level changes: elevation, depression, subsidences
.245	Divisional planes. Jointing of rocks
.1	Massive
.2	Laminated or bedded
.3	Columnar
.4	Spheroidal
.5	Parallelopipedal
.6	Irregular
.25	Dynamic, chemical and thermal rock changes. Metamorphism. Cleavage, etc. *Cf.* 552.16

~~551.25 Dynamic, chemical and thermal rock changes.~~
~~Metamorphism, cleavage, etc. Cf. 552.16~~

550.3 External geodynamics. Exogenous processes
Terrestrial and marine formations

.051 Sedimentation. Deposition. Stratification
.1 Intersecting stratification
.3 Ripplemarks
.9 Direction of strike
.053 Erosion. Denudation. Disintegration.
Weathering. Corrasion. Transportation

.31 Terrestrial formations, deposits and facies

.311 Subaerial type. Continental erosion, etc.
+ .1 Work of temperature conditions: cold and heat
.11 Action of cold (in general) *Cf.* 551.32
.19 Action of heat
.2 Work of land water, rain, rivers, flooding
Relations between climate and continental erosion
.21 Erosion by rain and torrents. Talus fans.
Valley formation
.22 Alteration of rocks and minerals
.23 Weathering phenomena. Soil & landscape formation.
Mountain creep. Earth pillars & pyramids
.24 Denudation. Levelling. Peneplains
.3 Work of wind. Aeolian deposits, facies.
Dunes. Loess. Hollows. Shardangs
.4 Zoogenous, ossiferous formations
.5 Meteoric formations. Fulgurites
.6 Clastic deposits. Breccia, etc.
.7 Volcanic formations. *Cf.* 551.21
.8 Mud volcanoes, mudstreams
.312 Limnal type. Freshwater formations
.1 Spring deposits. Sinter formation. Travertines.
Dendrites, etc. *Cf.* 552.54
.2 Marsh, bog, fen, peat formation.
Groundwater deposits. *Cf.* 551.49

551.312.3	Fluviatile facies. Running water. Rivers
.4	Lacustrine facies. Lakes, stagnant water
.313	Estuarine, deltaic type. Brackish deposits
.314	Lagoonal type. Gypso-saliferous facies
551.32	Glaciology
	→ 624.14, also 551.5
.321	Glaciological methods and instruments
.1	Investigation of snow and ice crystals
.4	Measurement of snow, ice and glacier temperature
.5	Measurement of snow, ice and glacier movement
.6	Measurement of ice thickness
.7	Measurement of snow cover properties
.8	Glaciological model experiments
.322	Solid water. Ice and snow
	→ 551.578.4
.53	Physics of ice
.324	← Land ice. Glaciers. Ice shelves
.2	Land ice types
.22	Valley, cirque, hanging glaciers. Ice aprons
.25	Ice sheets. Ice caps
.28	Ice shelves
.296	Cave ice
.3	Dimensions and depth of specific glaciers
.4	Mass and energy balance of glaciers
.41	Thermal balance, temperature, radiation
.43	Regime of glaciers. Accumulation. Ablation. Firn line. Snow line
.5	Glacier flow
.6	Glacier fluctuation, growth cycle, advances
.8	Structure and surface features of glaciers
.83	Glacier load. Moraine. Rock flour
.85	Crevasses
.86	Glacier streams, flowing water
.87	Glacier potholes. Glacier mills
.88	Ablation phenomena, Dirt cones. Ice pyramids. Penitentes. Glacier tables

551.326	Floating ice. Icebergs Cf. 551.467
.02	Observation, detection and reporting methods
.03	Forecasting of floating ice
.1	Distribution and movement of floating ice
.2	Formation and decay of floating ice
.3	Structure, surface features of floating ice
.4	Erosion by floating ice
.5	Extraneous matter in floating ice
.6	Icebergs
.7	Sea ice
.8	Ice on surface of inland waters. River and lake ice
.328	Anchor and frazil ice
551.33	Glacial geology
.331	Glacial erosion
.5	Land forms resulting from glacial erosion and protection. Rock basins. Cols,etc.
.52	Glaciated valleys. U-valleys. Fjords. Cirques
.55	Polished and striated rock
.332	Glacial deposition
.2	Glacial deposits. Boulder clay. Tillite. Glacio-fluvial, -lake deposits. Varves
.5	Land forms
.52	Terminal and recessional moraines
.53	Ground moraines
.56	Ice-dammed lakes. Glacial lakes
.57	Boulder trains. Erratic blocks
.58	Outwash plains. Valley trains
+ .333	⟵Glacial deformation. Isostasy, eustasy, etc.
.334	Glacial isostasy, eustasy & other ice-cover effects
.336	Former ice cover. Ice ages, e.g.
[redacted]:551.79	Quaternary ice ages
.338	Theories of causes of glacial periods
.34	Frost action on rocks and soil. Frozen ground. Permafrost Cf. 624.139

	551.34	Frost action on rocks and soil. Frozen ground. Permafrost. [redacted] → 624.139
	.341	Methods & equipment for investigating frozen ground
	.342	Frost action on solid rocks
	.343	Frost action on superficial deposits. Solifluction.
	.345	Frozen ground. Permafrost
	.53	Physical properties of frozen ground
	551.35	Marine formations, deposits, facies
	.054	Marine (surf, tidal) erosion, denudation
	.1	Effects of surf
	.11	Cannels. Holes
	.12	Caves. Grottoes. Rock doors
	.13	Raised beaches
	.2	Erosion due to tidal flow
	.3	Chemical effects of sea water
	.4	Destructive action of marine plants
	.5	Destructive action of marine animals
	.06	Surface level changes.
+	.061	Marine transgression
+	.062	Elevation
+	.063	Marine regression
	.351	Coastal or littoral deposits, erosion, etc. Formations, quicksands, reefs, atolls, etc.
	.1	Gravel or pebble beach deposits
	.2	Continental shelf and sand deposits. Quicksands
	.5	Coral reefs
	.352	Bathyal (pelagic) formations, deposits
	.1	Clay facies
	.2	Calcareous facies, sands and muds
	.4	Organogenic facies, oozes, etc.
	.353	Abyssal (abyssal) formations, deposits

~~551.353~~	~~Abyssal (Abysmal) formations, deposits~~
551.4	GEOMORPHOLOGY. SURFACE AND RELIEF FEATURES → (2) Aux.I.e; 712; 911.2
.41	Continents. Division of land from sea. → 551.241
.42	Islands. Islets → 551.351
551.43/.45	Relief features (geomorphology)
.432	Mountains. Mountain chains
.433	Massifs. Mountain knots of nodes
.434	Terraces. *Cf.* 551.312.3
.436	Valleys. *Cf.* 551.311.21; 551.331.52
.1	Valley formation
.2	Effects of rocks and climate on valley formation
.3	Valleys according to their orientation to the strata. Longitudinal and transverse valleys
.4	Fracture valleys
.5	Dry valleys
.437	River basins and capture. Watersheds
.44	Speleology. Caves. Underground Waters. Wells → (24) Aux.I.e.
.442	Caves. Fissures. Grottoes. Caverns.
.4	Stalactites, stalagmites and other formations
.444	Underground waters. Subterranean lakes and channels, especially in karst regions. Seepage points.
.448	Natural wells. Karst funnels → 551.491.5

551.45	Plains. Desert. Steppe. Prairie. Jungle → (25), Aux.I.e
+ .451	Plains, grassland and arable land generally
.3	Natural prairie or grassland. Savanna(h). Bush
.8	Reclaimed, drained, irrigated (arable) land
.453	Desert, waste or unfertile land
.455	Steppe, pampas, etc. Heath land
.457	Jungle. Swampy land
.458	Lava sheets. Ash-beds. *Cf.* 551.217
551.46	Oceanography. Submarine, ocean-floor topography
(26)	Regional oceanography
.0	Theory, technique and equipment of oceanography
+ .01	General theory of oceanography
.06	Observational data in oceanography
.07	Oceanographic laboratories and field work. Expeditions. Floating stations. Diving apparatus
.08	Instruments for oceanographic work. Tide gauges. Pressure and current meters, etc.
+ .09	Applied oceanography, e.g.
:621.221	Hydraulic energy from the sea
.461	General considerations of oceanography. Sea level and horizontal extent
.2	Sea level (excluding tides) and its variations
.6	The waters of the oceans as a whole
.7	Horizontal extent. Nomenclature. *Cf.* (26), Aux.I.e
.8	Palaeo-oceanography
.462	Submarine, ocean-floor topography. Bottom forms
.2	Depths of the sea. Bathymetric maps & atlases
.3	Continental & insular blocks, shelves, slopes
.5	Depressions of ocean-floor or bottom. Basins. Troughs
.6	Elevations of ocean-floor or sea-bottom. Ridges. Sills. Sea-scarps. Sea-highs. Banks. Terraces, etc.
.463	Sea-water: physical properties
.1	Mechanical properties: compressibility, density
.2	Compression waves. Underwater sound. *Cf.* 534-14
.3	Phase & colligative properties: diffusion, freeze point
.5	Radiation & optical properties: transparency, colour
.6	Thermal properties: heat conductivity, temperature
.7	Electrical properties: conductivity, dielectric
.8	Suspensions and suspended particles in sea-water
.464	Chemistry of sea-water. Chemical properties, etc. → 543.3
✓.09	Extraction of chemical substances from seawater. Extraction of water. *Cf.* 628.113.5
.1	Theoretical and physical chemistry of sea-water
.3	Composition of sea-water, dissolved matter
.5	Salinity determination (in the laboratory)
.6	Special elements and inorganic compounds. → 546
.7	Dissolved organic compounds in sea-water. → 547

	551.465	Structure, dynamics and circulation of the seas
+	.1	General statical and dynamical considerations
	.11	General (hydrodynamic) theory of the sea
	.12	Statics of the sea: pressure distribution, etc.
	.15	Turbulence. Eddy conductivity and viscosity
	.4	Stratification and three-dimensional hydrographic structure & circulation of water masses. Stability. Thermocline and wind-mixed layer. Isobaric surfaces
	.5	Sea currents (essentially horizontal and non-tidal). Current kinematics, charts, time variations, etc.
	.6	Surface water properties: time variations, etc.
	.62	Horizontal distribution of surface temperatures and/or salinities
	.63	Local time variations of temperatures & salinities
	.7	Interactions between sea and environment, e.g.
	:551.5	Influence of sea on weather and climate
	.8	Interactions of living organisms with water masses → 591.524.1
	.466	Sea waves and tides → 525.6 ; 532.59
	.2	Interpretation & analysis of sea wave observations
	.3	Wind waves. Swell waves
	.4	Effects of sea-bottom, obstacles, currents and turbulence on wind waves or swell. Surf, etc.
+	.45	Breakers. Surf
	.6	Long or tidal waves. Inertia oscillations. Seiches and related phenomena
	.7	Tides. Co-tidal lines. Tide tables. Tidal currents
	.467	Ice in the sea. Sea ice and icebergs from the oceanographical standpoint. Cf. 551.326/328
	.468	Coastal oceanography & special oceanographic forms → 627
	.1	Interactions of the sea with the shore. ~~Cf. 551.465.8~~ Nearshore currents. Cf. 551.465.7
	.2	Deep marginal sea areas. Bays. Fjords. Inlets
	.3	Shallow marginal sea areas. Coastal pools. Lagoons. Wadden
	.4	Inland seas. Brackish waters
	.6	Estuaries: problems of estuarine circulation and mixing. Cf. 551.482.6

	551.48	**Hydrological features. Surface waters**	
		→ 627.1 ; 551.312	
	.48.018	Instruments and methods of measurement	
	.481	Stagnant waters. Still waters	
	.1	Lakes	
	.2	Swamps. Marshes. Fens. *Cf.* 551.312.2	
	.482	Flowing or running waters	
	.2	Rivers	
	.21	Large rivers. Main streams	
	.211	Dimensional features: gradient, depth, breadth	
	.212	Form of the river-bed. Loops, etc.	~~? 556.5~~
	.213	Physical properties of water	
	.214	Chemical properties of water	
	.215	River dynamics and statics. *Cf.* 532.56	
	.1	Quantity of water and its variations	
	.2	Current velocity	
	.3	Floods and their prediction. High water	
	.5	Low water	
	.6	Drying up	
	.7	Various influences on river systems. Precipitation. Geography, geology and vegetation of the river basin	
	.75	Use of river water. Irrigation, etc.	
	.78	Reservoirs and upstream lakes	
	.22	Tributary rivers	
	.23	Coastal rivers	
+	.24	Other rivers	
	.241	Rivers in steppes, in deserts	~~? 556.53~~
	.242	Rivers in Karst regions. *Cf.* 551.444	~~and/or~~
	.243	'Periodic' rivers	~~(2) & "735"~~
+	.3	Brooks, torrents, rapids and waterfalls	
	.31	Brooks	
	.32	Torrents, mountain torrents	
	.33	Rapids	
	.34	Waterfalls. Cataracts	
	.4	Basins. River systems. Drainage, catchment areas → 551.437	~~? 556.5~~
	.6	River mouths. Estuaries. Deltas	
	551.49	**Groundwater hydrology. Geohydrology. Hydrogeology**	
		→ 553.7	
	.491	Generalities on groundwater & water in the earth	
	.3	Physical properties	
	.4	Chemical properties	
	.5	Dynamics and statics. Gradient. Yield	
	.6	Form of groundwater: solid(ice), liquid, vapour	
	.7	Permeability and absorptivity of rocks	
	.8	Origin of groundwater	
	.81	Surface origin. Vadose water	
	.82	Underground origin. Juvenile water	
	.83	Mixed origin	
	.84	Tracing of underground flowing water by means of salts, dyes & radioactive indicators	
	.493	Protective measures for springs & (under)ground water	

551.494	Relations of hydrology to other sciences
.495	Groundwater ≅ 551.491
.496	Artesian water
.2	Form of the water-bearing beds
.497	Springs 551.497.1 to .8 each ≅ 551.491 →553.7 ; 627.12 ; 628.112
.1	True groundwater springs
.2	Strata springs
.3	Overflow springs
.4	Permanent, perennial springs
.5	Fissure springs
.6	Fault springs
.7	Intermittent springs
.8	Springs dependent on gaseous pressure

551.5 METEOROLOGY. CLIMATOLOGY

551.50 Practical meteorology

.501 Observation & computation methods. Observatories

.3 Systems of units. Weather notations and scales, e.g. Beaufort scale

.4 Reduction & computation methods and tables

.5 Graphical representation methods. Isopleths

.7 Upper air observation & computation methods

.8 Atmospheric structure observation by radar and radio. Use of sferics

.9 Observatories, their construction & maintenance. Exposure of instruments. Station site

.506 Periodical observation data: pentadal, weekly, monthly, annual. Weather reports

.507 Equipment for transporting or supporting instruments, for installing or establishing stations

.508 Meteorological instruments

.2 Instruments for determining radiation & temperature. Pyrheliometers. Solarigraphs. Thermographs, etc.

.4 Instruments for determining atmospheric pressure. Barometers. Barographs. Hypsometers, etc. Cf. 531.787

.5 Instruments for determining wind. Wind vanes. Anemometers. Nephoscopes, etc.

.7 Instruments for determining humidity, evaporation, precipitation and cloud characteristics. Hygrometers. Rain- and snow-gauges, etc.

.8 Combined (multi-purpose) instruments. Meteorographs. Radiosondes. Radar equipment . Sferics equipment

.9 Instruments for measuring various physical phenomena, e.g. visibility, atmospheric composition, radioactivity

.509 Weather forecasting. Artificial action on weather

.2 Regular meteorological bulletins, charts & diagrams used in weather forecasting

.3 Bases and methods of forecasting weather

.5 Organisation of forecasting services. Use and checking of weather forecasting

.6 Artificial actions on the weather

.8 Weather lore

551.51 Structure, mechanics and thermodynamics of the atmosphere in general. Dynamic meteorology

→ 525.7

.510 Physical properties, composition & general structure of the atmosphere

.4 Composition of the atmosphere. Impurities

+ 551.510.5	General description of structure of the atmosphere
.52	Troposphere
.522	Layer in contact with the Earth's surface
.528	Tropopause
.53	Atmosphere above the troposphere. Stratosphere, etc.
.534	Ozone layer
.535	Ionosphere. *Cf.* 550.388.2
.7	Radioactivity of the atmosphere (incl. fall-out) → 614.73
.511	Mechanics and thermodynamics of the atmosphere. Standard atmospheres. Turbulence & diffusion
.513	General circulation of the atmosphere. Centres of action
.515	Weather. Atmospheric formations & disturbances
.1	Barometric depressions & extratropical cyclones: life history, displacement, tracks
.2	Tropical cyclones. Hurricanes. Typhoons
.3	Tornadoes. Whirlwinds. Waterspouts. Dust devils
.4	Convective precipitation systems. Thunderstorms. Showers
.7	Anticyclones
.8	Air masses and fronts
.9	Weather damage in general
551.52	Radiation and temperature ~~(atmospheric) cosmic)~~
.521	Radiation
.1	Solar radiation in general
.11	Sunshine
.13	Solar constant
.14	Reflection of solar radiation from surface of Earth or clouds. Albedo. *Cf.* 525.22
.16	Daylight illumination
.17	Ultraviolet radiation
.18	Infra-red component of solar radiation
.2	Terrestrial radiation
.3	Absorption, emission, scattering & transmission of rays in the atmosphere
.6	Cosmic and corpuscular (particulate) radiation → 523.165 ; 539.12
.9	Other radiations
.524	Temperature of the air
.2	Distribution at Earth's surface. Isotherms
.3	Variations at Earth's surface (diurnal, annual, etc.)
.36	Frequencies. Maximum & minimum temperatures
.37	Frosts and frost damage. *Cf.* 632.11 ; 624.142
[illegible].4	Vertical distribution in turbulent layer near the Earth's surface
.7	Upper air temperatures: variations, gradients

551.525	Earth temperature : surface, soil, underground Cf. 551.345
55 .526	Temperature of water surfaces as a meteorological element (seas, rivers, etc.). Cf. 551.463.6
551.54	Atmospheric pressure
.542	Distribution at Earth's surface. Isobars
.1	Barometric gradient
.543	Variations of pressure: secular trend, frequencies
.547	Upper air pressure: variations, distribution, etc.
551.55	Wind
.551	Turbulence. Gustiness. Micorvariations of wind
.552	Horisontal distribution near Earth's surface. Streamlines
.553	Variations of wind at Earth's surface. Breezes. ~~Monsoons. Gales~~ → 551.501.3; 551.515.2
+ .2	Annual ~~variation~~& seasonal variation. Monsoons
+ .8	Gales
.554	Vertical distribution in the turbulent layer near the Earth's surface
.555	Winds of special localities. Trade winds, doldrums. Catabatic winds (Föhn, bora, mistral). Polar (blizzard). Dust-bearing (sirocco, simoom, etc.)
.556	Effects of wind: damage, protection, etc.
.557	Upper air wind. Jet-stream, anti-trade winds
.558	Vertical components of air motions. Thermals, etc.
551.57	Aqueous vapour and hydrometeors
.571	Humidity: distribution, variations
.573	Evaporation and evapotranspiration
.574	Condensation and deposits
.1	Physics. Nuclei. Cloud droplets and ice particles
.2	Artificial condensation
.4	Condensation on the Earth's surface
.41	Liquid (dew)
.42	Solid (rime, hoar-frost, silver thaw, etc.)
.7	Condensation & deposits on objects in upper air
.575	Fog and mist
.1	Structure, formations and dissolution
.2	Distribution of fog & mist
.3	Variations
.576	Cloud
.1	Structure, formation and dissolution
.2	Amount of cloud. Nebulosity
.3	Variations of cloud
.4	Height of cloud
.5	Movement of clouds

	551.577	Precipitation in general
	.1	Structure, formation & dissolution. Classification. ~~Drizzle,~~ light & heavy rain. Showers. Cloudbursts
	.2	Distribution of precipitations at Earth's surface. Rainfall, etc.
	.21	Amount of precipitation. Isohyets.
	.22	Duration, days with precipitation
	.3	Variations, frequencies of precipitations
+	.37	Excessive falls
+	.38	Droughts
	.5	Various influences on precipitation: topography, vegetation, human activity, sheets of water
	.6	Damage caused by precipitation or droughts
	.7	Radioactivity of precipitation
	.578	Special forms of precipitation
	.1	Liquid precipitation, e.g. rain and drizzle
	.4	Crystalline precipitation, e.g. snow or sleet, granular snow, ice needles. *Cf.* 551.322 ; 624.14
	.45	Snow storms
	.46	Snow cover : thermal balance, ablation, firnification, stratification. Snow drifts
	.48	Avalanches: types, forecasting, disasters → 624.127; 624.144.4
	.7	Solid amorphous precipitation. Hail
	.8	Precipitation containing foreign matter, e.g. sand
	.579	Soil moisture and hydrology. Hydrometeorology → 551.48/[illegible]; 631.423.2
	551.58	Climatology
	.581	Solar climate. Climatic zones. Influence of latitude
	(211)	Polar climate
	(212)	Temperate climate
	(213)	Tropical and subtropical climates
	.582	Climatology of particular localities, regions and areas of the Earth. Climatographic monographs, etc. ~~[illegible]~~
	.583	Climate variations → 552.324.6
	.2	Historical periods
	.3	Prehistoric and recent (Quaternary) geological periods
	.7	Palaeoclimatology ≅ 551.7
	.584	Mesoclimatology. Microclimatology
	.2	Mesoclimates. Local climates
	.3	Microclimates, due to minor topographical and soil features (slopes, shores, snow surfaces, etc.)
+	.4	Microclimates of air layers modified by vegetation
	.5	Microclimates of streets and open spaces in towns
	.6	Cryptoclimates (indoor, cave, tunnel). *Cf.* 628.8
	.7	Climate of air spaces in snow soil and snow layers

	551.585	Types and classification of climate: oceanic, continental, desert, mountain, etc. Use (2...), Aux.I.e
	.586	Biometeorology. Bioclimatology → 628.8
+	.587	Upper air climatology, e.g. above particular places
	.588	Influence of environment on climate: topography and aspect, soil and subsoil, vegetation, human activity
	.589	Synoptic climatology
	.6	Special phenomena, e.g. Ice Saints' Days
	551.59	Various phenomena, cosmic and atmospheric
	.590.2	Cosmic influences: solar, lunar, planetary, etc.
	.3	Influences of volcanic eruptions on weather & climate
	.591	Visibility
	.593	Optical phenomena in the atmosphere
+	.1	Atmospheric refraction phenomena. ~~Mira~~ Scintillation
	.11	Mirage. Fata morgana
+	.5	Absorption and scattering phenomena
	.53	Blue of the sky. *Cf.* 525.75
	.55	Twilight ~~or dusk~~ phenomena. Alpine glow. Dawn. Dusk
+	.6	Phenomena produced by condensation products. Haloes, etc.
	.61	Fog bows. Brocken Spectre. Glories
	.62	Rainbows
	.63	Haloes. Parhelia. Paraselenae. Anthelia. Sunpillars (ice haloes). Mock suns and moons.
	.64	Coronae (small haloes)
	.65	Cloud coloration
	.594	Electrical phenomena in the atmosphere
+	.1	Electricity of fine weather: ionization, conductivity
	.2	Electricity of disturbed weather. Thunderstorms. Lightning. St.Elmo's Fire
	.5	Aurora - Borealis (Northern Lights); - Australis (Southern Lights)
	.6	Atmospherics regarded as phenomena of atmospheric electricity. *Cf.* 621.391.821
	.596	Acoustic phenomena in the atmosphere. *Cf.* 534.24
	.1	Sound propagation. Audibility. Zones of silence
	.5	Thunder

	551.7	HISTORICAL GEOLOGY. STRATIGRAPH
		→ 550.93 ; 551.3 ; 56 ; 571
	(1/9)	Regional stratigraphy
+	.02	Principles of correlation. Correlation charts
+	.022	Facies and facies changes. [illegible] Biozonation. Lithozonation. *Cf.* 551.31 ; 56(11)
+	.024	Unconformities
+	.03	Geological time scales. *Cf.* 550.93
+		.031 Absolute .032 Orogenic age .033 Litho-biologic
	551.71/.72	Cryptozoic Eon. Precambrian (600+ MYBP)
	.71	Archaean or Archaeozoic (Azoic, obsolete) Urgneisformation. Urschieferformation
	.72	Eozoic. Proterozoic. Algonkian
+	551.73/.78	Phanerozoic Eon (Present to 600 MYBP)
	.73	Palaeozoic (Primary, obsolete) (180 - 600 MYBP)
	.732	Cambrian (490-600 MYBP)
+		.2 Lower .3 Middle .4 Upper
	.733	Ordovician. Silurian ~~.1 Ordovician (430? 490 MYBP)~~
+	.1	Ordovician (430?-490 MYBP)
		.11 Lower .12 Middle .13 Upper
+	.3	Silurian. Gothlandian (400- 430 MYBP). ≠ 551.733.1
	.734	Devonian (350 - 400 MYBP)
+		.1 Old Red Sandstone .2 Lower .4 Middle .5 Upper
	.735	Carboniferous (270- 350 MYBP)
+		.1 Lower .15 Middle .2 Upper
	.9	Permo-Carboniferous
	.736	Permian (Dyas, obsolete) (220- 270 MYBP)
	.1	Lower Permian. Autunian. Rotliegendes, etc.
	.3	Upper Permian. Zechstein, Guadaloupe, etc.
	.75	Strata common to Palaeozoic and Mesozoic
+	.753	New Red Sandstone
+	.754	Karoo and Gondwana formations
	.76	Mesozoic (Secondary, obsolete) (70 - 220 MYBP)
	.761	Triassic (180-220 MYBP)
	.1	Lower Triassic. Bunter (Grès Bigarré)
	.2	Middle Triassic. Muschelkalk
	.3	Upper Triassic. Keuper. Rhaetian
	.762	Jurassic (135-180 MYBP)
	.1	Lower Jurassic. Liassic
	.2	Middle Jurassic. Dogger
	.3	Upper Jurassic. Malm
	.763	Cretaceous (70 - 135 MYBP)
	.1	Lower Cretaceous.
	.3	Upper Cretaceous

	551.77	Cenozoic or Cainozoic, Neozoic (Present to 70 MYBP) i.e. Tertiary and Post-Tertiary
	.78	Tertiary (1-70 MYBP)
	.781	Palaeogenic. Nummulitic (Old or Early Tertiary)
	.3	Palaeocene. Midway
+		.31 Lower .32 Middle .33 Upper
	.4	Eocene. ≅ 551.781.3
	.5	Oligocene. ≅ 551.781.3
	.782	Neogene (Late Tertiary)
	.1	Miocene
+		.11 Lower .12 Middle .13 Upper
	.2	Pliocene
+		.21 Lower .23 Upper
	551.79	Quaternary (1 MYBP to present) → 571(11)
	.791	Pleistocene or Diluvium in general
	.792	Preglacial period. Calabrian
	.793	Glacial and Interglacial periods
+	.9	Late-Glacial. Late-Weichsel. Late-Wisconsin (15000-10 000 YBP)
	.794	Holocene, Postglacial or Flandrian in general (10 000 to present)
+	.795	Pre-Boreal and Boreal periods (10 000 -8 000 YBP)
+	.797	Atlantic and Sub-Boreal periods (8 000- 2500 YBP)
+	.799	Sub-Atlantic and Recent periods (2500 YBP to present)
	551.8	PALAEOGEOGRAPHY. *Cf.* 551.336; 551.583.7
+	.02	Palaeocosmology. *Cf.* 550.93; 551.12
+	.07	Palaeobiogeography (distribution of life)
	.81/.89	Palaeogeography of specific eons, eras, periods ≅ 551.71/.79

552	**PETROLOGY. PETROGRAPHY. ROCKS** → 553
552.1	**Rock investigation. Physical & physico-chemical petrology.** Use :53 and :54
.11	Petrogenesis. Origin of igneous rocks. Physico-chemical petrology
.12	Rock examination & investigation
.121	Microscopic determination of minerals in rocks. Mineral combinations
.122	Structure and texture of rocks. Cf.539.22
.123	Size of rock constituents
.124	Nature & types of rock constituents. Concretions. Septaria. Geodes
.125	Crystallization state of rocks
.4	Mineral structure: idiomorphic, hypidiomorphic, allotriomorphic, dendritic, microlitic, etc.
.14	Diagenesis. Induration. Formation of sedimentary rocks
.16	Metamorphism of rock
.18	Mineral associations of rocks
+552.2	**Rock classification:** chemical, mineralogical → 552.3/.6
552.3	**Igneous, magmatic, eruptive rocks**
.31	Generalities. Various types (by mode of occurrence)
.311	Plutonic rocks. Plutonites in general
+ .312	Hypabyssal rocks in general
.313	Volcanic rocks. Vulcanites in general
.1	Lavas: general considerations
.8	Pyroclastic rocks. Tuffs
.32	Calc-alkali rocks
.321	Plutonic type. Calc-alkali granites & syenites. Diorites. Gabbros. Peridotites
.322	Hypabyssal type. Granite & syentie porphyries. Aplites & pegmatites. ~~Lamprophyres~~
.323	Volcanic type. Granophyres. Quartz porphyrites. Trachytes. Andesites. Basalts. Picrites
.33	Alkali rocks
.331	Plutonic type. Alkali granites & syenites
.332	Hypabyssal type. Alkali granite & syenite porphyries.
.333	Volcanic type. Keratophyres. Alkali trachytes. Phonolites, etc.
552.4	**Metamorphic rocks**
.051	Structure & texture of metamorphic rocks
.42	Gneiss
.43	Crystalline schists. Mica, chlorite, talc

552.44	Phyllites. Sericite slates
.45	Quartzites. Itacolumites
.46	Marbles
.47	Serpentine schists
.48	Eclogites. Amphibolites
552.5	Sedimentary rocks. → 551.3
.51	Arenaceous rocks. ~~Cf. 553.62~~
.511	Breccias
.512	Conglomerates
.513	Sandstones
.514	Greywackes
.515	Loose clastic rocks. Gravels. Pebbles. Sand
.52	Argillaceous rocks. Clay-rock. Shales. Slates. Clays. Loam. Loess. Mudstone. Cf. 553.61
.53	Salt and gypsum rocks ≅ 553.63
.54	Calcareous rocks. Limestones. Marls. Dolomites
.55	Siliceous rocks. Flints
.56	Ironstones
.57	Carbonaceous rocks. ≅ 553.9, e.g.
.574	Coal, bituminous coal
.58	Organogenic rocks. Diatomite or kieselguhr
552.6	Meteorites → 523.5
.61	Holosiderites. Iron meteorites → 549.263
.62	Lithosiderites. Stony meteorites. Pallasite
.63	Rock meteorites. Chondrite
.64	Tektites (obsidianites). Australites → 549.691.1

553 ECONOMIC GEOLOGY. MINERALS. ORES. STONES

→ 552 ; 622.3 ; 679.8

	.042	Mineral resources in the ground
	.06	Classification according to origin of deposits
	.062/.067	Magmatic deposits
	.062	Intramagmatic deposits
+	.063	Intrusive deposits
	.064	Pneumatolytic deposits
	.065	Hydrothermal veins. Metasomatic deposits
	.066	Zeolitic deposits, e.g. of native metals
	.067	Volcanic exhalation deposits
	.068	Sedimentary deposits
+	.069	Deposits of unknown origin
	553.1	Determination & description of ores and economic minerals & stones. Cf. 549.1; 552.1
	:53	Physical properties
	:543	Chemical analysis
	.12	Microscopic examination & description of ores and minerals
	553.2	Origin & formation of ores and minerals. Types or forms of ore deposit. Cf. 622.03
+	.21/.24	Physico-chemical processes of formation
	.21	Alteration. Crystallisation. Segregation. Differentiation & crystallisation of magmas
	.22	Metasomatism
	.23	Contact phenomena. Hydrothermal replacement processes
	.24	Metamorphism, alteration of country rock
+	.25/.27	Non-genetic properties & classification of deposits
	.25	Primary & secondary, hypo- and super-gene minerals
+	.251	Primary & secondary minerals .1 Primary .2 Secondary
+	.252	Hypo- and supergene ores and minerals .1 Hypogene .2 Supergene
	.26	Differences in metal content of deposits. Enrichment. Impoverishment. Depth zones
	.27	Differentiated forms & structural types of deposits. Stratified and unstratified deposits
+	.271	Compact, massive deposits (unstratified)
	.1	Veins. Lodes
	.3	Lenticular deposits
	.4	Compacted masses. Lumps
	.5	Irregular, uncompacted masses
	.272	Impregnation deposits
	.275	Other unstratified deposits
	.277	Stratified deposits. Seams

553.3/.9	DEPOSITS OF SPECIFIC ECONOMIC MINERALS, ORES AND STONES. MINERAL RESOURCES
+ 553.3/.4	Metalliferous ores
+ 553.3	Iron and manganese ores (≅ 622.341)
.31	Iron ores → 553.661.2
.311	Magnetite or loadstone. Titaniferous iron ores
.312	Haematite (oligiste-iron)
.313	Other oolitic & pisolitic iron ores. Chamosite
.314	Residuary iron ores. Gossan. Limonite
.315	Siderite deposits. Carbonate of iron
.316	Bog iron ores
.32	Manganese ores
.322	Oolites
.323	True manganese peroxides. Pyrolusite. Polianite
.33	Rhenium ores
553.4	Metalliferous ores (other than Iron-manganese)
.41	Gold and silver ores (≅ 622.342)
.411	Gold ores (auriferous deposits, reefs, bankets)
.3	Placers. Alluvial deposits
.412	Silver ores. Argentite (silver blende or glance) and argentiferous gold ores
.43	Copper deposits: native copper and copper ores
.431	Native copper
.432	Copper ore veins
.434	Copper ores in sandstone, slate & schist
.435	Copper pyrite (chalcopyrite). Malachite
.44	Lead, zinc and cadmium ores
.441	Associated lead-zinc veins
.445	Lead ores. Galena (lead glance)
.446	Zinc ores. Blende (zinc blende or sphalerite)
.448	Thallium ores
.449	Cadmium ores
.45	Tin ores. Cassiterite (tin stone). Stannite (tin pyrites), etc.
.461	Chromium ores. Chromite (chrome iron ore)
.462	Molybdenum ores
.463	Tungsten ores. Wolframite, etc.
.464	Vanadium ores
.465	Niobium (columbium) ores
.466	Tantalum ores. Tantalite, columbite, etc.
.469	Germanium ores
.48	Cobalt and Nickel ores

	553.491	Platinum group ores
	.492	Aluminium ores. Bauxite. Alunite (alumstone)
	.493	Rare earths. Cerium. Yttrium. Scandium. Thorium (e.g. Monazite)
	.494	Titanium, Zirconium and Hafnium ores, e.g. Rutile and ilmenite (Ti ores)
	.495	Uranium (and other radioactive) ores, e.g. Pitchblende, uraninite
	.496	Gallium and Indium ores
	.497	Arsenic and Antimony ores, e.g. Stibnite
	.498	Bismuth ores, e.g. bismuthinite, bismite
	.499	Mercury ores. Cinnabar, etc.
	553.5	Rocks. Building and quarry stones. Freestone → 679.8
	.52	Igneous (non-volcanic) rocks: plutonic (abyssal) or hypabyssal. Granites and syenites
	.521	Granite
	.522	Syenite
	.53	Volcanic rocks and lavas. Porphyries
	.532	Dioritic and gabbroitic lavas. Basalt. Andesite
	.534	Tuff. Trass
	.535	Glassy or vitreous lavas. Pumice. Pozzuolana. Perlite, etc.
	.54	Metamorphic rocks. Schists and serpentines
	.541	Schists
	.542	Slate
	.543	Serpentine rock. Soapstone. *Cf.* 553.676
	.545	Gneiss
	.55	Calcareous rocks: limestones, marbles, chalk
	.551	Limestones. Marls
	.553	Marble (coloured and white)
	.555	Chalk
	.556	Tufa. Travertine (calcareous)
	.558	Lithographic stone, e.g. Solenhofen stone
	.56	Calcareous-siliceous rock & stone, e.g. millstone, roadstone (road metal), ballast
	.57	Siliceous rocks. Sandstones and grits
+	.572	Marlstone, molasse
	.573	Ordinary sandstone
	.574	Siliceous sandstone. Quartzite
	553.6	Various siliceous and other inorganic minerals and earths
	.61	Clays, pigments and feldspars
	.611	Clays. Ochres. Fuller's earth. Bentonite
	.612	Kaolin (china or porcelain clay)
	.613	Feldspars
+	.614	Leucite and similar feldspathoids

	553.62	Quartz, flint, sand and gravel. *Cf.* 552.55; 552.58
+	.621	Quartz (in general)
	.622	Flint
	.623	Sand
	.624	Gravel
	.625	Diatomaceous, infusorial earths. Tripoli(te), diatomite or kieselguhr
	.63	Alkalides & other (chiefly alkali metal) salts
	.631	Rock-salt or halite. *Cf.* 553.77
	.632	Potassium salts and compounds
	.633	Lithium, Rubidium and Caesium compounds
	.634	Special halo(gen) compounds. Fluorspar. Cryolite, etc.
	.635	Sulphates. Gypsum. Alabaster
	.636	Carbonates ~~(chiefly alkali metal)~~
	.637	Borates
	.638	Nitrates ~~(chiefly alkali metal)~~
	.64	Phosphates and phosphate rocks
	.641	Inorganic origin. Apatite
	.643	Organic origin. Guano → 631.854
	.65	Emery and corundum (abrasive grades) → 553.492; 553.82
	.66	Sulphur, selenium and tellurium ores
+	.661	Sulphur and sulphur ores
	.1	Native sulphur
	.2	Sulphur ores. Pyrites (iron pyrite or mundic). Marcasite (white iron pyrite). *Cf.* 553.31
	.662	Selenium ores
	.663	Tellurium ores
	.67	Silicates of Magnesium & other alkaline earths, alkali metals, aluminium, iron, etc.
	.673	Talc group. Steatite. Meerschaum, etc. *Cf.* 553.543
	.676	Asbestos. Chrysotile & similar fibrous silicates *Cf.* 553.543
	.677	Mica group. Muscovite. Biotite. Lithia mica
+	.678	Vermiculite & other modified silicates of magnesium, aluminium, iron, etc.
	.68	Alkaline earth deposits generally
	.682	Magnesium compounds. Magnesite. Dolomite
	.684	Beryllium compounds. *Cf.* 553.83
	.685	Calcium compounds, e.g. in chalky soils. *Cf.* 553.55
	.688	Strontium compounds. Strontianite, etc.
	.689	Barium compounds. Barytes. Witherite
	.69	Other useful inorganic minerals (except gems → 553.8)
	.691	Zerovalent elements (Helium, Neon, Argon, Krypton, etc.) as inorganic minerals

553.7	Mineral springs
	→ 551.497 ; 615.838 ; 663.64
.031	Temperature of mineral springs in °C
.1	under 20°C. Cold springs
.2	over 20°C generally. Warm springs generally
.3	20° - 34°C. Hypothermal springs
.4	34° - 38°C. Homothermal springs
.5	over 38°C. Hyperthermal springs
.71	Alkaline springs
.72	Aerated (acid CO_2 containing) and iodized springs
.73	Ferruginous springs. Chalybeate and arsenical waters
.74	Sulphur springs & waters. Bitter springs
.75	Calcareous springs. Earthy springs
.76	Radioactive springs
.77	Saline springs. Muriatic springs
.78	Hot springs with up to 1 gm salt per litre. *Cf.*551.23~~4~~ (Hot springs with more than 1gm/l.salt are classed under the appropriate 553.71/.77...031.2etc.)
.791	Siliceous springs
553.8	Precious and semi-precious stone deposits
	→ 622.37 ; 679.87
.81	Diamond
.82	Corundum. Sapphire. Ruby. *Cf.* 553.65
.83	Beryl. Emerald. Aquamarine. *Cf.*553.684
.84	Topaz
.85	Garnet (carbuncle)
.86	Zircon
.87	Quartz (as gem). Amethyst. *Cf.* 553.62
+ .875	Smoky, yellow or brown quartz. Citrine.Cairngorm
.88	Opal
.89	Other precious or semi-precious stones (gems) ≝ 549, e.g.
.896.422.6	Jade (jadeite, nephrite)
.897.431.2	Malachite
553.9	Carbonaceous mineral deposits
	→ 552.57 ; 622.33
.91	Graphite. Plumbago
.93	Anthracite. Graphitized coal
.94	Coals, non-bituminous and bituminous
.95	Jet
.96	Lignite. Brown coal
.97	Peat and sapropel deposits

553.98	Hydrocarbons, Bituminous minerals, etc. → 622.32
.981	Gaseous hydrocarbons. Natural gases.
.982	Mineral oils. Petroleum
.983	Bituminous schists. Oil-shales
.984	Oil-sands. Bituminous sands
.985	Asphalts. Natural lake & rock asphalts. Uintaite or Gilsonite. Elaterite (elastic bitumen). → 622.337 ; 665.45
+ .986	Ozokerite
+ .988	Natural hydrocarbon-containing emulsions
.99	Fossil resins. Amber. Fossil copals → 622.339 ; ~~679.9~~ 678.58 ; 679.9

56 PALAEONTOLOGY. FOSSILS

56 : 57	Palaeobiology
: 581	General palaeobotany. *Cf.* 561
: 591	General palaeozoology. *Cf.* 562/569
56 (11)	Stratigraphic palaeontology. Zone fossil study ≅ 551.7, or use : 551.7...
56 (2/9)	Geographical, regional and local palaeontology → 551.8
56.0	Analytical palaeontology
.01	Theories of fossilization, problematic remains or relics
.012	Fossilisation and fossil preservation
.1	Plant fossilisation and
.2	Animal fossilization
.3	Imprints (fossil)
.016	Problematic remains, Traces & impressions
.1	Plant remains or relics
.3	Animal remains or relics
.4	Animal traces & impressions in rocks
.017	Influence of geological periods
.2	Succession of flora and fauna
.4	Causes of extinction in the course of time → 581.9 ; 591.93
.02	Fossil types
.022	Zone fossils (Leitfossile). *Cf.* 550.86
.024	Facies fossils. *Cf.* 551.3.051
.07	Experimental procedures. Determination of fossils
.072	Preparation & restoration(s) of fossils
.074	Reconstruction(s) of fossils & their environments
561	Systematic palaeobotany ≅ 582, e.g.
.2	Fossil spore plants, mosses, ferns, etc.
.43	Pteridosperms
.45	Bennettitales
.46	Ginkgoales. Cordaitales
.5	Fossil angiosperms, flowering plants
562/569	Systematic palaeozoology ≅ 592/599, e.g.
564	Fossil molluscs
565.7	Fossil insects
567	Fossil fish
568.1	Fossil reptiles. Pterodactyls. Dinosaurs, etc.
.2	Fossil birds. Archaeornis. Archaeopteryx
569.5	Fossil whales, dolphins. Archaeoceti
.6	Fossil ungulates
.9	Fossil man. Palaeoanthropology. Pithecanthropus. Eoanthropus. Homo fossilis

57 LIFE SCIENCES IN GENERAL. ANTHROPOLOGICAL & BIOLOGICAL SCIENCES

→ 58; 59; 61; 63

+ 571/572	ANTHROPOBIOLOGY. ANTHROPOLOGICAL SCIENCES
571	PREHISTORY. ARCHAEOLOGY Prehistoric man. Artifacts. Remains. Finds → 930.26 (Archaeology as source study of history)
(11)	Prehistoric periods. *Cf.* 551.7/8
(119)	Quaternary period
(119.2)	Preglacial period
(119.3)	Glacial period. Ice Age
(119.4)	Postglacial period in general
(119.5)	Ancylus(lake)age
+ (119.7)	Litorina(sea), Stone and Bronze ages
(119.712)	Litorina period
(119.714)	Early Stone age. Palaeolithic period
(119.717)	Mid Stone age. Mesolithic period
(119.72)	Late Stone age. Neolithic period
(119.73)	Copper Age
(119.78)	Bronze age
(119.8)	Iron age
(119.82)	Early Iron age. Hallstatt period
(119.84)	Late Iron age. La Tène period
(119.9)	Recent (late alluvial) and Mya(sea)period → 93
+ 571.1/9	Prehistoric objects & remains. Artifacts, etc.
.1/2	Stone age objects and remains
.1	Primitive objects. Natural stones, plant & animal remains usable by man with little or no alteration
.13	Animal remains, bones, shells, etc.
.15	Identifiable stone objects: simplest artifacts, tools, weapons, etc.
.2	Tool-worked objects. Artifacts of stone and flint, plant and animal remains
.3	Copper, bronze (and tin) objects or artifacts
+ .39	Tin objects and artifacts
.4	Iron objects or artifacts: weapons, tools, vessels
.5	Various objects of other materials
.51	Wood objects and artifacts
.52	Bone, horn, leather or hide objects
.53	Wicker and other plaited objects. Basketwork
.54	Woven objects, textile fabrics, etc.
.55	Pottery, earthenware & other clay objects
.56	Glass objects and artifacts

	571.58	Food remains
	.59	Mixed remains. Kjøkkenmøddinger. Shell mounds
	~~571.6~~ .7	Artistic, decorative, ornamental objects
	.71	Drawings
	.72	Paintings
	.73	Sculptured objects, reliefs, models. Carvings
	.74	Inscriptions
	.76	Ornaments. Amulets, etc.
	.77	Tattooing
	.8	Remains of dwellings and construction works
+	.82	Mud huts
+	.83	Lake dwellings. Pile dwellings, etc.
+	.84	Cave and cliff dwellings
+	.85	Villages, settlements, pueblos
+	.87	Military, fortified encampments or settlements
	.91	Burial remains. Barrows, Urn-fields, Cairns,etc.
	.94	Stone monuments. Cromlechs, circles, dolmens, menhirs e.g. (41) in Britain: Stonehenge, Avebury, etc.
	.96	Artificial mounds or hills
	.97	Settlements, buildings, roads, bridges, viaducts, etc. of higher cultures (e.g. Roman)
	572	PHYSICAL ANTHROPOLOGY AND ETHNOLOGY Natural history of man and the races of man. → 39 ; 61
+	572.02	Influence of external factors on man
+	.021	Climate. Acclimatization
+	.022	Geographical influences on man
+	.023	Nutrition. Food and eating habits
+	.024	~~Daily conduct,~~ Behaviour, habits & customs, traditions
+	.025	Daily routine, activity and occupation
+	.026	Cultural background & factors, type of civilization
+	.027	~~Country and racial~~ National and racial factors
+	.028	Form of society: tribal, etc.
+	.087	Anthropometrics measurement(s)
	572.1/.4	Anthropogeny. Origin & antiquity of man → 233 ; 576.1
	.1	Mono- or polyphyletic origin of man
	.2	Diversity of man. Races. Varieties
	.4	Place and time of man's origin. Antiquity of man
	572.5	Somatology. Stature, pigmentation, features of man → 312.6 ; 599.9 ; 611.9
	.51	Body shape and stature in general
	.511	Bearing. Carriage. Postural deformity.Corpulence
	.512	Stature, size & proportions. Use -056 Aux.I.k
	.52	Pigmentation, colouring. Integument, ~~or~~ skin, hair, etc.
	.521	Pigmentation and depigmentation generally
	.522	Albinism, absence of pigmentation

	572.523	Correlation between hair, skin and eye colour. Pigmentation types
	.524	Integument. Skin. Hair. Nails
	.525	Eyes: characteristics and colour. *Cf.* 611.84
	.54	Head and face (soft parts). *Cf.* 572.71; 572.76
	.541	General shape and form of the features, facial expression, etc. Physiognomy (Age by -053..; male -055.1, female -055.2)
	.543	Head dimensions, form and size generally. *Cf.*572.743
	.544	Face dimensions, form and size. *Cf.* 572.76
	.545	Proportions of individual features: eyes, lips, nose, ears and their relationships
	572.7	Morphology, merelogy (in Martin's sense). Anthropological studies of isolated organs → 611, esp. 611.7
	.71	Craniology in general. Skull and cranium
	.72	Skull proportions in man, and in relation to ~~animals~~ animal skulls
	.73	Skull types
	.74	Cranium (and brain). Cranio-cerebral relationship.
+	.743	Cranial proportions. Cephalic index or breadth-to-length ratio of skull. *Cf.* 572.543
	.75	Racial variations of parts & bones of the cranium
	.76	Frontal cranium, face and jaw bones. *Cf.* 572.544
	.77	Teeth and denture. Dentition
+	.781	Osteology. Skeletal and bony system (other than skull)
	.4	Trunk skeleton. Spine, ribs, sternum
+	.6	Limb skeleton. Pectoral girdle, arm bones. Pelvis and leg bones
	.782	Musculature. Muscular system
	.783	Circulatory system
	.784	Respiratory system
	.785	Digestive (gastro-intestinal) system
	.786	Endocrine system
	.787	Urogenital or genito-urinary system
	.788	Central nervous system
	.79	Anthropobiology, race physiology and pathology
	.795	Racial crossing and mixing
	572.9	Special anthropography. Ethnology. Races of man
	(=)	Racial analysis of particular areas, peoples and population groupings, e.g.
	(=91)	Racial analysis of 'Aryan' peoples ~~→ 159.922.4~~
	.94	Europide or white race
	.95	Mongolide or yellow race, including Amerindian
	.96	Negride or black race, including Melaneside and Australide

574	GENERAL BIOLOGY
574.6	Applied biology (in general). Technical biology → 581.6 ; 591.6 ; 663.1
574.9	Biogeography (in general). Geographical distribution of life and living organisms → 581.9 ; 591.9 ; 91, esp. 911.2
.91	Migration and transposition of species
575	→ 575.6
+ 575/576	GENETICS. HEREDITY. VARIATION & SPECIES FORMATION. EVOLUTION AND DEVELOPMENT OF ORGANISMS
575	GENETICS. HEREDITY. VARIATION & SPECIES FORMATION
-181	Size, dimensions (of organisms or parts)
-182	Biogeometry. Symmetry & asymmetry (in organisms)
-183	Weight (or organisms or parts)
-184	Number
.061	External characteristics of organisms or parts
.1	Form and shape
.2	Density, e.g. of ears of corn
.5	Texture
.6	Colour
575.1	Genetics. Heredity. Mendelism.
.11	Experimental genetics. Mendelian experiments
.111	External influences: climate, temperature, etc.
.112	Internal influences: sexuality, hormones, etc.
.113	Factors (hereditary). Genes & alleles (allelomorphs)
.114	Segregation (Mendel's First Law). Independent assortment of chromosomes & genes (Mendel's Second Law). Recombination. *Cf.* 575.25 ; 576.354
.115	Dominance. Recessiveness. Dominant & recessive genes. Dominance-recessiveness relation
.116	Linkage of genes. Crossing-over & chiasmata. Chromosome mapping & maps. Sex linkage
.12	Natural crossing or hybridization. Hybrid character
.123	Heterozygosis
.125	Heterosis. Hybrid vigour
.126	Persistence. Constancy of characteristics & races
.127	Interspecific & intergeneric hybrids or crosses
.128	Endogamy. Dispersion. Exogamy
.129	Non-segregating, true-breeding hybrids
.13	Atavism. Reversion
.14	Inbreeding effects. Homozygosis. Pure lines
.15	Mechanical phenomena (genetics)
.16	Chemical phenomena (genetics)
.17	Morphological phenomena. Gene reactions. *Cf.* 576.312.3
+ .172	Physiological reactions & effects. Pleiotropism
+ .173	Biochemical (gene) reactions & effects

	575.18	Sex influence in heredity. Sex-linked characters.
+	.182	Matroclinous, maternal influence
+	.183	Patroclinous, paternal influence. Telegony
	.19	Genealogy. Pedigree. Eugenics → 613.94 ; 929.1/.5
	~~[illegible]~~ 575.2	Variations. Mutation and segregation → 576.16 ; 577.8
	.22	Natural variations
	.23	Experimental, induced variations
	.24	Mutations. ~~[illegible]~~
+	.243	Directed mutation. *Cf.* 575.4
+	.247	Somatic mutation
	.25	Segregation. Chimaeras and graft hybrids
+	.255	Chimaeras
+	.257	Graft hybrids (Pfropfbastarde)
	575.3/.7	Species formation: influencing factors → 576.1
	.3	Adaptation in species formation. Inheritance of acquired characteristics(Lamarckism. Neo-Lamarckism) → 159.922.2 ; 301.16
	.32	Phylogenetic and ontogenetic influences
	.4	Natural & artificial selection (Darwinism) in species formation and evolution. Struggle for existence. Survival of the fittest
	.5	Sexual selection in species formation & evolution
	.6	Migration and species formation. *Cf.* 574.91
	.7	Degeneration & regeneration in species formation and evolution. ~~Structural~~ Extinction
+	.73	Signs of degeneration, e.g. formation of vestigial organs
	.74	Degeneration
	.76	Regeneration
	.79	Extinction of races and species
	576.1	Origin and creation of life generally. → 575.3/.7
	.10	Creation of life and species (Linnaeus). Dualistic theories of origin of life
	.11	Spontaneous generation of life. Abiogenesis
	.12	Evolutionary theory and history of the origin of species. Phylogeny. Theory of descent
	.15	Theories on the extra-terrestrial origin of life. Origin of life in the stars. Panspermy (Arrhenius)
	.16	Nature of species, sub-species, etc.
	576.2	General morphology and physiology → 581.1/.4 ; 591.1/.4 ; 611/612

576.3/7 Stages in the organisation of living matter

	576.3	Cytology (general). Cell biology → 581.17; 591.81 ; 612.014
	.31	Cell morphology, structure and composition
	.311	Cytoplasm, cell protoplasm in general.
	.312	Nucleus: form, chemical composition, etc.
	.3	Morphology of the nucleus. Chromosomes. Cf.575.11
+	.31	Chromatin
	.33	Chromosomes
+	.332	Sex-chromosomes. X and Y chromosomes
	.34	Form, size & structure of chromosomes
	.35	Number of chromosomes (in the nucleus)
	.313	Polar bodies (polocytes). Centrosomes, centrioles
	.314	Plasma-membrane (cell-membrane) & vacuole. Cf.576.323
	.32	General physiology and motility of the cell
	.321	Protoplasmic movements (within the membrane)
	.322	Cilium and flagellum movements. Cilia. Flagella
	.323	Contractile vacuoles. Cf. 576.314
	.324	Cell shape changes due to passive movements
	.33	Cell irritability and sensitivity → 576.4 ; 577.25; 581.18
	.332	Response or reaction of the cell to stimuli
	.333	Taxis (tactisms). Tropisms
	.34	Nutrition and metabolism of cells. Anabolism. Catabolism
	.341	Osmosis. Plasmolysis. Respiration. Assimilation
	.342	Absorption and elimination of substances by the cell
	.343	Chemistry of cell transformations and exchanges
	.344	Morphological effects of cell metabolism
	.345	Action of catabolic products on the cell. Poisons. Toxins.
	.35	Cell division, reproduction & degeneration. Cf.575.11
	.351	Amitosis (simple cell constriction)
	.353	Mitosis. Karyokinesis
+	.354	Meiosis (reduction division). Synapsis or pairing of chromosomes. Cf. 575.114
	.355	Various influences on the cell division
	.356	Haploidy. Diploidy. Triploidy. Polyploidy and other anomalies of cell division
	.357	Degeneration of the cell nucleus
	.36	Life of the cell
	.37	Fertilisation, union of gametes, zygote formation → 581.16; 612.613
	576.4	Cell and (micro)organism movement and locomotion → 576.33; 581.18; 591.17
	576.5	Association of cells and of unicellular organisms. Cell colonies.
	576.6	Symbiosis. Mutualism. Parasitism → 576.8.095.3 ; 581.557; 591.557

	576.7	Tissues & organs: development & organization. The organism as a whole
	.72	Tissues and their development generally. General histology & histogenesis → 581.8 ; 591.8 ; 611-018
	.74	Organs and their development generally. General organology & organogenesis → 572.7; 581.4; 591.4; 611
+	.744	Correlation and integration of organs. Homology. Analogy. Convergence. Divergence
	.76	Biological organization and perfection in general. The living organism as a whole → 577.95 ; 581.3; 591.3; 611-013
	576.8	MICROBIOLOGY. BACTERIOLOGY. PARASITOLOGY → 582.28; 591.69; 615.37; 616-093/-098
	.01	Origin. Geographical distribution of micro-organisms (and parasites)
	.06	Micro-organisms and parasites as pathogens. Pathogenic micro-organisms. Carriers → 616-008.87/.89; 616-008.97/.99; 616-093/-098
	.07	Bacteriological, parasitological and humoral analysis and diagnosis. *Cf.* 616-078
	.073.2	Diagnosis by inoculation, vaccination,[illegible]
	.3	Diagnosis by means of micro-organism culture
	.4	Diagnosis by pigment formation, smell or odour, luminescence, fluorescence
	.074	Diagnosis by size and form of micro-organisms
	.075.32	Diagnosis by means of micro-organism motility
	.37	Diagnosis based on habitat of micro-organisms
	.077	Immunodiagnosis. Diagnosis using antigens & antibodies, serum, bacteriophage, etc.
	.078	Diagnosis of micro-organisms, parasites and their cultures on the basis of their physical & chemical properties
	.093	Technique & methods in bacteriology and parasitology
	.1	Investigation, preparation, isolation, fertilization, conservation, digestion, homogenizing, separation and filtration of cultures
	.2	Inoculation, auto-inoculation. Infection methods
	.3	Cultures: various media, purification methods
	.4	Examination. Fixing. Staining (cultures)
	.5	Sterilization in microbiological technique
	.6	Counting and counts. Viable and total counts. Plate counts. Dilution, Opacity measurement, sedimentation and centrifuging methods, etc.
	.7	Size determination (of micro-organisms & colonies)
	.094	Morphology of micro-organisms and colonies
+	.1	Colonies: form, size; chain, thread, cluster, swarms
+	.2	Individual micro-organisms: shape and form

576.8.095 **Physiology of micro-organisms: metabolism, growth**

.1 Environmental influences generally
.2 Oxygen requirement of micro-organisms
+ .21 Aerobiosis. Aerobic micro-organisms
+ .22 Anaerobiosis. Anaerobic micro-organisms
.3 Nutrition. Metabolism. Assimilation of nitrogen, carbon, etc. Chemotrophic, autotrophic, heterotrophic, phototrophic micro-organisms
.4 Development. Growth. Generation and life-span
.5 Variations, modifications, polymorphism
.6 Reproduction, multiplication, fission, etc. Rate of reproduction or multiplication
.7 Physiological morphology. ≅ 576.8.094
.8 Movements, motility, irritability of micro-organisms

.097 **Antigens and antibodies. Immunity, etc.**
→ 612.017; 616-056

+ .1 Theory. Side-chain theory of immunity, etc.
.2 Action on the host. Antigens. Allergens, etc.
.21 Virulence
.22 Activation
.23 Latent infection
.24 Attenuation, loss of virulence
.25 Retarding, inhibiting effect
.29 Toxic effect or action. Toxins
.3 Defence, reaction of the host. Antibody formation. Immunity, active and passive immunization
.31 Resistance, natural immunity
.32 Anaphylaxis
.33 Desensitization
.34 Agglutinins, precipitins, coagulins. Agglutination → 612.115; 616.151.5
.35 Bacteriolysins
.36 Sensitizing substance. ~~Complement-fixation~~
.37 Alexins. Complements and complement-fixation
.39 Antitoxins
.4 Opsonins, bacteriotropins, stimulins, etc. enhancing phagocytic properties of leucocytes
.5 Antibodies: humoral reactions
.8 Specificity and paraspecificity

.098 Physics, chemistry and metabolism of micro-organisms. Anabolism. Catabolism
≅ 616-008.8

576.85 SYSTEMATIC BACTERIOLOGY (AND VIROLOGY)
→ 616.98; 631.46; 632.3

576.851 **Eubacteriales. True bacteria**

+ .1 Pseudomonadaceae
.134 Acetobacter
.135 Nodule bacteria. Rhizobium

576.851.2 Coccaceae. Cocci. Globular bacteria

.21 Streptococcus species. Pneumococcus
+ .23 Gram-negative cocci. ~~Chlorobi~~ Veillonella, etc.
.232 Aerobic: Diplococcus. Gonococcus. Meningococcus
+ .25 Gram-negative cocci (other than Streptocci)
.252 Aerobic: Micrococcus. Staphylococcus

.3 Spirillaceae. Vibrios. Spirilli (Corkscrew bacteria)
+ .31 Vibrio species. Cholera vibrio
+ .33 Spirillum species. Rat-bite fever spirillum, etc.

.4 Bacteriaceae. Non-spore-forming rods
+ .42 Gram-negative aerobic rods: Brucella
+ .43 Gram-positive aerobic rods: Kurthia
.45 Pasteurella. Plague, tularaemia, haemorrhagic septicaemia bacteria
.46 Haemophilic rods: B.haemophilus of influenza, whooping cough, soft sore, etc.
.48 B.coli
.49 Salmonella species. Typhoid and dysentery bacteria. B. typhosus. B. paratyphosus

.5 Bacillaceae. Spore-forming rods
+ .51 Aerobic spore-forming rods. Aerobic soil bacteria
.511 Anthrax bacillus
+ .55 Anaerobic spore-forming rods. (Pepto)clostridium, etc.
.551 Clostridium tetani, tetanus bacillus
+ .553 Clostridium botulinum, botulism bacillus
+ .56 Anaerobic methane-forming rods. Methanoclostridium
+ .57 Anaerobic carbohydrate-fermenting rods. B. butylicus

+ .7 Doubtful Eubacteriales (bacteria-like bodies)
+ .71 Rickettsia species. Typhus (jail fever) rickettsia
+ .75 Bartonella (Grahamia) species of Oroya fever, etc.

576.852 Actinomycetales. Fungoid bacteria. Cf. 582.28

.1 Actinomycetaceae. Fungoid threads or filaments
+ .11 Actinobacillus species (actinobacillosis)
+ .15 Actinomyces species (actinomycosis, erythrasma)
.17 Erysipelothrix (of swine erysipelas)
+ .18 Non-pathogenic actinomycetes. Streptomyces. Nocardia

.2 Mycobacteriaceae. Fungoid rods
+ .21 Mycobacterium species. Acid-fast fungoid rods
.211 M. tuberculosis. Tubercle bacillus
.213 M. or B. leprae. Leprosy bacillus
+ .22 Thermobacterium. Filamentous lactic acid bacteria
.23 Corynebacterium. Diphtheria micro-organisms
.24 Rod-shaped lactic acid bacteria
+ .27 Glanders, farcy mycobacteria. B.mallei

576.853 Chlamydobacteriales. Iron bacteria

576.854 Thiobacteriales. Sulphur bacteria

	576.855	Myxobacteriales
+	.2	Sorangiaceae
+	.4	Polyangiaceae
+	.6	Myxococcaceae
+	.8	Cytophagaceae
	576.856	Spirochaetales. Spirochaetes. Flexible spirals
	.4	Mucosal spirochaetes: oral, bronchial, intestinal
	.5	Blood spirochaetes. Spironaema of relapsing fever
+	.6	Treponema species
	.61	T.pallidum. Syphilis spirochaete
+	.62	T.pertenue. Yaws(framboesia,pian) spirochaete
+	.7	Leptospira species (leptospiroses)
	.71	L.icterohaemorrhagica (infectious jaundice
	576.858	Viruses. Filter-passers. Virology. *Cf.* 616.988
+	.1	Dermotropic (exanthema) viruses
	.13	Pox group viruses
	.15	Wart group viruses
+	.2	Neurotropic viruses
	.21	Rabies virus
	.23	Poliomyelitis and paralysis viruses
	.25	Encephalitis group viruses
	.27	Distemper (canine distemper) virus
+	.3	Myotropic viruses
+	.4	Epitheliotropic viruses
+	.41	Trachoma & infective conjunctivitis viruses
	.43	Aphthous fever virus (foot-and-mouth disease)
+	.5	Adenotropic viruses
	.51	Mumps virus (infectious,epidemic parotitis)
+	.53	Lymphogranulomatosis virus. *Cf.* 616.97
+	.55	Glandular fever virus (infectious mononucleosis)
+	.57	Avian leukaemia virus
+	.6	Tumour-forming viruses. Rous (fowl) sarcoma. Rabbit fibromatosis, etc.
+	.7	Catarrhal viruses
	.71	Yellow fever virus
+	.72	Dengue virus
	.73	Psittacosis (parrot fever) & fowl plague viruses
+	.74	Pleuropneumonia (cattle) and agalactia viruses
	.75	Equine influenza virus. Swine fever virus
	.76	Infectious anaemia virus (swamp fever of horses)
	.77	Insect disease viruses. Silkworm jaundice. Sacbrood of bees, etc.
	.8	Mosaic viruses of plants. Tobacco mosaic, etc.
	.9	Bacteriophages ('phages) or bacteriolytic viruses
	576.859	Undetermined members of the class Bacteria

	576.88/.89	PARASITOLOGY
	576.88	Plant parasitology. Cf. 632.3/.5; 616.992 ≅ 582, e.g.
	.882.8	Fungus parasites
	576.89	Animal parasitology. Cf. 632.6/.7; 616.993 ≅ 59, e.g.
	.893.19	Sporozoal parasites (coccidiosis, piroplasmosis)
	.895.1	Worms, helminthic parasites (helminthiasis)
	.42	Mites and ticks, acarine parasites
	577	GENERAL PROPERTIES OF LIFE AND LIVING MATTER
	577.1	CHEMICAL PROPERTIES OF LIVING MATTER. BIOLOGICAL CHEMISTRY. BIOCHEMISTRY → 543.9; 576.34; 581.19; 591.04; 612.015
	.11	Chemical structure of living matter and organisms. Comparison of chemical structure of plants, animals and minerals. Circulation & exchanges in nature
	.12	Chemical conversions and exchanges within organisms. Metabolism and metabolic changes generally Chemical role of tissues and various organs
	.13	Reserve substances in biologyand living organisms. Stored energy. Molecular stability, etc.
	577.15	Enzymes. Enzymology. Fermentation → 543.866; 547.9; 581.199; 591.13; 612.015.1; 663.1
	.01	Type of enzymes and associated agents
+	.011	Zymogens. Pro-enzymes. Action of kinases
+	.012	True, active enzymes
+	.013	Coenzymes
+	.014	Anti-enzymes
	.02	Theory and mode of action of enzymes. Enzymes as catalysts. Velocity of action. Reversibility
+	.024	Activation, acceleration of enzyme action
+	.025	Retardation of enzyme action. Enzyme poisons
	.03	Influence of physical, mechanical and physico-chemical factors, e.g. light, radiations
	.04	Influence of chemical substances and factors, including acidity or alkalinity (pH-value)
	.05	Influence of living matter or organisms: substrate, etc.
	.06	Origin, distribution and production. Fermentations due to bacteria, yeasts and other organisms
	.07	Preparation, isolation, synthesis of enzymes
	.08	Determination of, and analysis by, enzymes

	577.151	Fermentation processes in general
	.152	Hydrolytic fermentation. Hydrolases
	.153	Lipolytic fermentation. Esterases. Lipases
	.154	Saccharolytic fermentation. Carbohydrases
+	.2	Saccharases. Sucrase. Invertase. Lactase, etc.
+	.3	Polyases. Amylases. Inulinase. Cytase, etc.
	.155	Nucleases. Amidases. Amino-acidases
	.156	Proteolytic fermentation. Proteases
	.4	Pepsinases. Pepson, etc.
	.5	Chymases. Rennin, rennet
	.157	Other fermentations and hydrolytic enzymes
	.2	Thrombin. Blood-clotting enzymes
	.158	Enzymatic oxidations and reductions. Oxidases. Oxidoreductases (Dehydrases). Desmolases
	.1	Respiratory enzyme reactions yielding oxygen or oxygen-containing compounds
	.2	Enzyme reactions or fermentations yielding hydrogen or hydrogen-containing compounds
	.3	Zymases
	.31	Yeast zymases
+	.32	Other plant zymases
	.321	Alcoholic fermentation zymases
	.322	Lactic acid producing zymases
+	.33	Animal zymases
	.4	Acido- and purine-dehydrases
	.5	Chromo-dehydrases and -oxidases. Pigment producers
+	.7	Catalases
	577.16	Vitamins. Vitaminology
		→ 543.867; 591.133.1; 612.015.6; 616.39; 641.18
	.01/.08	Vitamin types, theory and mode of action, physical and chemical influences, preparation, determination ≅ 577.15.01/.08, e.g.
	.011	Provitamins
	.03	Influence of various factors, e.g. irradiation
	.07	Preparation, isolation, synthesis of vitamins
	.161	Fat-soluble vitamins
	.1	Vitamin A group
	.2	Vitamin D group
	.011	Provitamins D (Ergosterol, cholesterol, etc.)
	~~.164~~	~~Water-soluble vitamins~~
	.3	Vitamin E (tocopherol)
	.4	Vitamin F (linoleic acid)
	.5	Vitamin K group
	.164	Water-soluble vitamins
	.1	Vitamin B complex
+	.11	Vitamin B_1 (thiamin, aneurin)
+	.12	Vitamin B_2 (riboflavin)
+	.15	Nicotinic acid (niacin)
	.17	Folic acid

577.164.2	Vitamin C (ascorbic acid)
.3	Vitamin P (citrin, rutin, hesperidin)
.169	Differences between vitamins and hormones. Vitamin-hormone transition substances
577.17	Hormones and other bio-catalysts or growth factors → 576.8.095.3; 612.018; 612.4; 631.81.095.337; 632.095.3
.01/.08	Types, action, influences, synthesis, etc. ≅ 577.15.01/.08, and additionally
.049	Trace elements
577.2	Nature of life → 612.013
.21	Physico-chemical conception of life
.22	Living and dead matter: chemical & structural differences, examination, etc.
.23	Molecular life. Conception of life as a synthesis of molecular energies
.24	Relations between life and death
.25	Excitability. Irritability. Sensitivity and response to stimuli. *Cf.* 577.3
577.3	BIOPHYSICS. BIO-MECHANICS. BIO-ENERGETICS. Energy exchange in living matter. → 539.12.04
577.4	GENERAL CONDITIONS OF LIFE. RELATION TO ENVIRONMENT/ ECOLOGY → 581.5; 591.5
.41	Optimum humidity. Minimum humidity. Limits of drought in which life is still possible
.42	Optimum and limiting temperatures
.46	Relationship of living matter to the inanimate environment. Cosmic and terrestrial factors
.47	Life and environmental distribution
.471	Life in the atmosphere and space. *Cf.* 523.07
.472	Life in the hydrosphere (water). Hydrobiology
(26)	Sea life
(28)	Freshwater life. Limnobiology
(289)	Brackish water life
.473	Static, rooted forms of life
.474	Free-moving forms of life
.475	Plankton
.476	Land life (on solid earth)

577.48	Relations between living organisms and their animate environment
.482	Symbiosis in the strict sense. Mutualism
.484	Formation of life-groups composed of one species
.486	Communities. Association of groups of different species. Biological equilibrium in communities
.49	General phenology. Periodicity in living organisms generally
577.5	Comparison of plant and animal life
577.6	Dualistic theories of the nature of life. Vital force. Vitalism. Neo-vitalism
577.7	Senescence. Ageing. Longevity. Death → 612.013 ; 612.67
.71	Senescence and its nature
.72~~2~~	Death: definition, conditions and causes
.73	Mortality and longevity of living organisms → 575.79 ; 612.68
.74	Decomposition phenomena in living organisms. Putrefaction
.75	Kinds or types of death
.76	Manifestations, signs or symptoms of death
577.8	Sex and sexuality in nature →! 612.6
.80	Nature of sexuality. Bisexuality
.81	Sex differentiation. Male and female
.83	Hermaphroditism. Gynandromorphism. Intersexuality
.84	Experimental control of sex. Sex reversal
.86	Sexual dimorphism. Sexual characteristics
.88	Sex determination. Sex ratio
577.9	Reproduction and growth of living matter & organisms → 612.64 et seq.
.91	Theories of reproduction and growth. Germ-plasm theory. Rejuvenescence and regulation hypothesis
.95	Ontogenetic development. Growth of the individual. Alternation of generations. Comparative mechanics of development

578 BIOLOGICAL TECHNIQUE

[redacted]

.08	Biological experiments and observation generally
.081	Determination, identification
.082	Care & breeding of experimental plants & animals. Containers, cages, etc. Feeding, nutrition
.083	Experiments & observations under artificial conditions. In vitro experiments
.084	Experiments & observations under natural conditions. In vivo experiments. → 612.012
.085	Observations after experiment. Cultures
.1	Tissue and organ preparations in situ
.2	Tissue and organ preparations removed from the organism. Perfusion. Tissue culture, etc.
.086	Microscopic observations. ≠ 578.6
.087	Measurement and recording of phenomena
.1	Biometry, statistical investigation of living processes
.7	Measurement of mechanical quantities. ≠ 531.7
.8	Measurement of physical phenomena & properties. ≠ 53
.9	Biochemical and biological phenomena & properties
.0881	Use of chemical and physical agents
.089	Experimental dissection and surgical operations. ≠ 616-089
578.6	Microscopy of biological objects or specimens . Cf. 535.8
.61	Collection and fixing of specimens in general
.63	Special treatment of objects or specimens
.65	Staining, coloration & decoloration. Impregnation
.66	Injection techniques
.67	Hardening techniques. Sectioning. Microtome sectioning
.68	Permanent preparations. Culture chambers. Micromanipulations
.69	Reconstruction from series of sections. Models. Drawings. Photomicrography. Cinemicrography
579	NATURAL HISTORY COLLECTIONS (LIVE & DEAD SPECIMENS) → 069 (Museum technique)
.1/.5	Preparation, preservation and mounting technique
.1	Preparation of skeletons. → 56.072
.2	Preserving and hardening fluids, solutions, etc.
.3	Vascular injection, production of transparency
.4	Stuffing of animals. Taxidermy
.5	Mounting of objects or specimens
.6/.8	Collection, display and maintenance of exhibits
.6	Collection, provision and supply of exhibit material
.7	Display & arrangement of exhibited specimens. Labelling
.8	Maintenance and preservation of exhibited specimens
.81	Insects and other agents harmful to collections
.82	Preventive measures. Pesticides, etc.
.83	Mould. Damp
.84	Preservation of natural colours

58 BOTANY

→ 631/635

58.00	Botanical theory, practice, research, etc. ≅ .00 (Aux.I.i)
.001	Fundamental ideas. Definitions. Classifications. Research
.006	Space & accommodation. Botanical reserves, gardens, etc. → 502.75 ; 712.25 ; 727.6
58.01	Effect of internal factors. Developmental factors
.02	Effect of external factors, of several factors combined
.03	Effect of physical and mechanical factors. Energetics
.031	Weight. Gravity. Parallel forces
.032	Water. Moisture, humidity. Drought, dryness of soil
.033	Height. Atmospheric or air pressure effects
.035	Absorbed and emitted light. Luminescence. Darkness
.036	Temperature, heat and cold effects. Energetics sensu stricto
.037	Electricity and magnetism as botanical factors
.039	Pressure and other mechanical factors
.04	Effect of chemical factors, e.g.anaesthetics, poisons
.05	Effect of geological, meteorological & cosmic factors
.051	Soil and its effect. Cf. 631.4
.055	Meteorological factors. Wind, etc.
.056	Climatic factors
.057	Cosmic factors, e.g. moon
.061	External characteristics (of plants). Form, colour, etc. ≅ 575.061
.07	Effect of biological factors, e.g.of (other) plants, of animals and man
.08	Investigation techniques. Experiments. Observations ≅ 576.08
.09	Culture methods
581	GENERAL BOTANY. PLANT BIOLOGY
581.1	PLANT PHYSIOLOGY AND METABOLISM → 612, esp. 612-019
581.11	Circulation and its mechanism. Absorption & elimination of fluids, sap, gases, etc. in plants
.111	Absorption of liquids (from soil or air)
.112	Circulation, movement of liquids & sap through plants
.113	Water elimination. Cf. 581.135
.114	Gas absorption mechanism. Cf. 581.12/.13
.115	Circulation of gases in plants
.116	Transpiration, evaporation, gas elimination
581.12	Catabolism. Respiration. Oxygen absorption. Anaerobic or intramolecular respiration
581.13	Assimilation. Nutrition. Reserves. Secretion. Plant metabolism and biochemistry (generally) → 577.1 ; 581.19
.131	Assimilation by autotrophic plants in general

581.132 Carbon assimilation. Photosynthesis (in general) by means of chlorophyll or other catalysts

.133 Assimilation, uptake of nutrients & other substances
  .1 Nitrogen assimilation
  .4 Sulphur assimilation
  .5 Phosphorus assimilation
  .8 Artificial nutrition. Nutrient salt solutions

.134 Reserves: formation, circulation, digestion

.135 Secretion and excretion: glands, etc.
  .1 Lactiferous tubes
  .3 Glands, secretory cells
  .4 Nectaries
  .5 Secretions: essential oils & perfumes, resins, gums, nectar & honey, crystals, etc.

.136 Partial resorption of degenerated parts & tissues → 581.148

.137 Assimilation by heterotrophic plants
  .1 Saprophytes. Plants living on humus, putrefied matter, etc.
  .2 Insectivorous plants. Carnivorous plants
  .3 Parasitic plants. Cf. 576.88; 632.53
  .4 Hemiparasitic plants
  .7 Metabolism of heterotrophic plants in general

581.14 Plant development, germination, growth, degeneration → 581.3

.141 Seed formation

.142 Germination

.143 Growth and regeneration
  .2 Primary growth, growing points, differentiation
  .28 Rate of growth. Periodicity of growth. Rest period. Hibernation
  .3 Secondary growth, normal and abnormal
  .4 Transplantation growth
  .5 Regeneration

.144 Development physiology ofthe vegetative organs
  .1 Thallus
  .2 Roots, underground nutrient organs
  .3 Stems or stalks. Trunk and branches (of trees)
  .4 Leaves
  .9 Other vegetative organs

.145 Development physiology of reproductive organs
  .1 Flowers. Blossoms. Buds
  .2 Fruit. Cf. 581.3

.148 Degeneration. Loss of particular parts. Withering. Leaf-fall. Cicatrization. Wood formation → 581.136

.149 Life duration. Longevity. Death

581.15 Variations. Variability. Modification. Mutations → 575.2

581.16 **Reproduction of plants**
→ 575; 577.9

.162 Sexual reproduction & reproductive organs
  .1 Reduction division. Formation of germ-cells & spores
  .2 Gamete or sex-cell formation
  .3 Pollination. Self-pollination. Cross-pollination
  .4 Fertilization (physiology)

.163 Parthenogenesis. Apogamy. Apospory

.165 Vegetative reproduction & reproductive organs
  .1 Reproduction by suckers, bulbils, tubers, etc.
  .7 Special methods of propagation. Budding. Cuttings. Grafting and grafts

.166 Alternation of generations
→ 577.95

.169 Plant genetics and heredity
→ 575.1

581.17 **Plant cell and tissue physiology**
→ 576.3 ; 576.72; 581.8

.174 Plastids. Chromatophores. Chloroplasts. Leucoplasts. Aleurone grains

.175 Cell sap and its constituents. Cf. 581.112

.176 Tissue physiology from the cytological standpoint. Plant histophysiology. → 581.8

581.18 **Plant movements, sensitivity, tropisms & tactisms**
→ 577.25

.181 Protoplasmic movements, tactisms

.182 Cohesion mechanisms. Hygroscopic movements . Dehiscence of anthers. Swelling. Shrinking

.183 Paratonic, induced, stimulated movements. Bending

.184 Tropisms
+ .1 Geotropism .2 Hydrotropism .4 Chemotropism
+ .5 Phototropism .6 Thermotropism .8 Hapto-, thigmotropism

.185 Nastic movements: nyctinastic (sleep), seismonastic (shock)

.186 Autonomic movements. Nutations. Hypo-, epinasty

.188 Locomotion and tactic movements. Chemo-, phototaxis, etc.
+ .1 Autonomic locomotion .2/.6 = 581.184.2/.6

.189 Other movements of plants
  .1 Projecting or ejecting movements, e.g. seeds, spores
  .15 Chorisms. Separation phenomena, e.g. of organs

581.19 **Chemical constituents of plants. Phytochemistry**
→ 581.13 and specify by :546 and :547

.192 Chemical composition of plants
→ 543 (Analysis) and :546/547

.198 Internal reactions in the plant

.199 Fermentation and enzyme physiology
→ 577.15

	581.2	PLANT DISEASES, INJURIES, MALFORMATIONS. PLANT PATHOLOGY. PHYTOPATHOLOGY → 632 (the main place)
	581.3	EMBRYOLOGY OF PLANTS
	.32	Ovules. Thecae. Sporogonia. Sporangia
+	.321	Ovules. Thecae
+	.322	Sporangia. Sporogonia
	.33	Embryo sac. Pollen grains. Spores
+	.331	Embryo sac. Pollen grains
+	.332	Spores
	.34	Antheridia (male). Oogonia (female). Archegonia
	.35	Egg cells. Spermatazoids. Gametes or germ-cells
+	.351	Egg cells, ova, ovules. Spermatazoids (antherozoids)
+	.352	Gametes, isogametes and anisogametes
	581.4	MORPHOLOGY OF PLANTS
	.41	General morphology of plants
	.42	Thallus [simple undifferentiated plant-body)
	.43	Roots. Nutrient organs of plants
	.44	Stems. Hypocotyl. Nodes. Shoots. Buds, Branching
+	.446	Stem modifications. Cladodes. Tendrils. Rhizomes. Tubers. Stolons (runners). Cf. 581.456
	.45	Leaves. La minae (blades). Petioles (leaf-stalks). Leaf-scars. Venation
+	.456	Leaf modifications. Phyllodes. Sporophylls, etc. Cf. 581.446
	.46	Flowers. Perianth: calyx & sepals, corolla & petals. Stamens & anthers. Gynoecium & carpels.
	.47	Fruit (ripened ovaries)
	.48	Seeds: embryo and endosperm. → 581.3 (Embryology)
	.49	Other organs. Stipules. Ligules. Hairs. Prickles Thorns. Glands. Pores, etc.
	581.5	ECOLOGY & SOCIOLOGY OF PLANTS. BIONOMICS. THE PLANT AND ITS ENVIRONMENT → 577.4
	.51	Instinct
	.52	Environment. Habitat
	.522	Individual ecology. Autecology
	.4	Adjustment. Acclimatisation
	.5	Ecological anatomy. Structure and environment
	.6	Migration. Dissemination by seeding
	.524	Associational ecology. Synecology
	.1	Theory. Mutual influences of living organisms
	.12	Competition, its nature
	.14	Natural pruning
	.2	Invasion

581.524.3	Plant succession
+ .32	Physiographic factors
+ .33	following animal activity
+ .34	following human activity (fires, drainage,etc.)
.4	Zones and zonation
.42	Horizontal zonation
.43	Vertical zonation
.44	Climatic zonation (frigid,temperate,tropical) Use (2...), Aux.I.e.
.526	Ecological formations. Use (2...) Aux.I.e.
.3	Hydr ophytes (aquatic or wet habitats)
.32	Aquatic formations: benthos; pelagic (nekton,plankton)
.33	Freshwater marsh, bog and fen formations. Cf.581.526.52
.34	Heath formations
.35	Moorland, high moor formations
.4	Mesophytes (forest & wood,field & meadow habitats)
.42	Forest & woodland formations
.43	Climbing plants. Lianes
.44	Epiphytes
.45	Prairie, & pampas (grassy) plain formations
.5	Xerophytes (desert or dry habitats). Halophytes
.52	Halophytes. Salt & salt-marsh formations. Cf.581.526.33
.53	Desert and steppe formations (tundra, dune,etc.)
.54	Rock formations
.55	Snow and ice formations. → 551.34
.56	Crater formations and plants
.527	Floral regions. Endemic & polyphyletic plants
.54	Climatic, seasonal and cosmic factors. Phenology Use ~~the~~ 58.01/.09, and "32" (Seasons) Aux.I.g
.55	Phytosociology. Plant communities & associations
.552	Consociations. Dominant groups of a community
.553	Societies. Subdominant or minor groups
.554	Colonies. Small groups on otherwise bare areas
.555	Climax and serial communities
.557	Symbiosis. Mutualism. Consortism. → 576.6
.56	Provision for successors
.57	Protection and attraction: means or devices
.572	Protection against mechanical influences. Attachment of organs. Sensitivity
.573	Protection against plants and animals. Thorns. Stings. Raphides. Mimicry
+ .7	Mimicry, protective similarity in plants
.574	Means of attraction
581.6	ECONOMIC OR APPLIED BOTANY. UTILIZATION OF PLANTS, e.g. IN TECHNOLOGY & INDUSTRY → 63 (Agriculture)

581.8	PLANT HISTOLOGY → 576.3 ; ~~576.82~~ 576.7
.81	General nature & characteristics of tissues, formation, modification and growth
.82	Kinds or types of tissues
.821	Epidermis. Cuticle. Stomata. Cork (phellem)
.822	Secbetory tissue
.823	Ground tissues. Parenchyma. Sclerenchyma. Collenchyma
.824	Vascular (conducting) tissues. Xylem. Phloem
.825	Gas-exchange tissues. Lenticils. Aerenchyma
.829	Other plant tissues
.84	Structure of plant organs from histological point of view. → 576.74 and ≠ 581.4
581.9	DISTRIBUTION OF PLANTS. FLORA. PHYTOGEOGRAPHY Divide by (1/9), Aux.I.e, e.g. (24) Cave flora (83) Flora of Chile
582	SYSTEMATIC BOTANY. PLANT TAXONOMY
-1	General biological, physiological, pathological, morphological, ecological & geographical aspects ≠ 581, e.g. 582:579-113.4 Iridineae, reserves
582.2/.3	CRYPTOGAMIA. FLOWERLESS PLANTS. SPORE PLANTS
582.21	Cryptogamia in general
582.22	Thallophyta in general
.23	Schizophyta. Bacteria (as plants)
.231	Schizomycetes. Bacteria (as plants) → 576.85 (main place)
.232	Schizo-, myxo- or Cyanophyceae. Blue-green algae → 582.26
.24	Myxothallophyta. Myxomycetes (Mycetozoa). Slime moulds or fungi. Plasmodia masses
.251	Flagellatae. Cf. 593.16
.252	Dinoflagellatae. Peridineae
.253	Adiniferidea
.254	Diniferidea
.258	Silicoflagellatae
.259	Heterocontae
.26	Bacillariophyta.(Diatoms). Algae. Algology
.261	Bacillariophyceae (diatoms)
.1	Centricae (Centrales)
.2	Pennales
.262	Conjugatae. Desmidiales. Zygnematales
.263	Chlorophyceae. Green algae
.264	Protococcales. Volvocales. Euprotococcales
.265	Ulotrichales. Chaetophorales
.266	Cladophorales. Siphonocladales
.267	Siphonales

582.271	Charophyta. Charales. Stoneworts
.272	Phaeophyceae. Brown algae. Ectocarpales. Dictyotales. Fucales, etc.
.273	Rhodophyceae. Red algae
.274.	Bangioideae. Bangiales
.275	Florideae. Nemaliones. Gelidales. Cryptonemiales. Gigartinales, Rhodymeniales. Ceramiales
582.28	Eumycetes. Mycology. Fungi and moulds
.281	Phycomycetes. Algal fungi. *Cf.* 582.283
.1	Oomycetes, incl. Ancylistales (Archimycetes)
.2	Zygomycetes, incl. Chytridiales (Archimycetes)
.21	Mucorales. Mould fungi
.282	Ascomycetes
.1	Euascales
.17	Helvellineae. Morels
.18	Tuberineae. Truffles
.23	Saccharomycetineae. Yeasts
.283	Protomycetes (Archimycetes). *Cf.* 582.281
.284	Basidiomycetes (in general)
.285	Hemibasidii [illegible] Smut and rust fungi
.1	Ustilaginales. Smut fungi
.2	~~Sm~~ Uredinales. Rust fungi
~~[illegible]~~	~~Eubasidiomycetes~~
.287	Eubasidii. Toadstools, mushrooms, puffballs, etc.
.1	Protobasidiomycetes
.2	Autobasidiomycetes
.23	Hymenomycetineae. Mushrooms
.26	Lycoperdineae. Puff-balls
.284	Phallaceae. Stinkhorns
.288	Fungi imperfecti. Hyphomycetes, etc.
.29	Lichenes. Lichens (fungus-alga associations)
.290	Phycolichenes. Geosiphonaceae
.291	Ascolichenes (Pyrenocarpeae, Gymnocarpeae)
.292	Pyrenocarpeae
.293	Gymnocarpeae. Discolichenes
.3	Cyclocarpineae
.378	Parmeliaceae. Iceland-moss
.296	Basidiolichenes. Hymenolichenes
582.31	Archegoniatae. Asiphonogamous embryophyta
582.32	Bryophyta (Muscineae). Mosses and liverworts
.33	Hepaticae. Liverworts. Marchantiales. Anthocerotales. Jungermanniales, etc.

582.34	Musci. Mosses
.341	Sphagnales. Sphagnum or Bog-moss
.342	Andreasales. Alpine mosses
.343	Bryales
.344	Eubryinales. Eubryales. Isobryales, etc.
.62	Schistostegaceae. Luminous moss
.345.1	Hypnobryales
.346	Buxbaumiinales
.347	Polytrichinales
582.35	Pteridophyta. Vasculares. Fern-like plants
+ .352	Psilotphytineae. Psilophytales (fossil forms). Cf.582.391
.37	Articulatae. Sphene
.371	Sphenophyllales (fossil forms)
.374	Equisetales. Horsetails
.2	Euequisetales. True horsetails
.5	Calamitales
.38	Lycopodineae
.381	Lycopodiales. Club-mosses
.2	Lycopodiaceae. True club-mosses
.382	Selaginellales. Lycopodiales ligulatae
.4	Lepidodendraceae
.8	Sigillariaceae
.391	Psilotinae. Psilotales. Cf. 582.352
.392	Isoetinae. Isoetales. Quill-worts
.394	Filicinae. Filicales. Ferns
.4	Ophioglossales. Adders-tongue ferns
.7	Leptosporangiatae
.72	Eufilicales. True ferns. Bracken, etc.
.722	Osmundaceae. Panicle ferns, e.g.Royal fern
.726	Matoniaceae. Shade ferns
.736	Cyatheaceae. Tree ferns
.742	Polypodiaceae. Polypodium
.75	Hydropteridales. Aquatic heterosporous ferns. Marsiliaceae, pill-worts. Salviniaceae
+ 582.4/9	PHANEROGAMIA. SPERMATOPHYTA. SEED-PLANTS.
582.4	SPERMATOPHYTA. SIPHONOGAMOUS EMBRYOPHYTA. SEED-PLANTS (IN GENERAL). GYMNOSPERMAE
582.42	Gymnospermae (in general). Naked-seed plants
.43	Cycadofilicales (Pteridospermae). Fern-like seed-plants (extinct, fossil forms)
.44	Cycadales. Palm-like gymnosperms. Cycads
.45	Bennettitales. Cycad-like cone-bearers (extinct)
.46	Ginkgoales (mainly fossil forms)
+ .462	Ginkgoaceae. Ginkgo. Maidenhair trees
.465	Cordaitales (extinct, fossil forms)

	582.47	Coniferae. Coniferales. Conifers
	.471	Taxaceae. Yews
	.472	Podocarpaceae
	.473	Araucariaceae. Monkey-puzzle trees
+	.474	Cephalotaxaceae
	.475	Pinaceae. Pines and fir trees
	.2	Abietoideae. Spruce. Larch. Cedar
	.4	Pinoideae. Pine, Scots pine, etc.
	.476	Taxodiaceae. Swamp cypress. 'Big tree' & redwood (Sequoia, Wellingtonia)
	.477	Cupressaceae. Cypresses and junipers
	.2	Thujoideae. Thuja. Tree of Life
	.4	Cupressoideae. Cypresses
	.6	Juniperoideae. Juniper
	.478	Other conifers
	.49	Gnetales. Ephedra. Welwitschia. Gnetum
	582.5	ANGIOSPERMAE. ENCLOSED-SEED PLANTS. FLOWERING PLANTS IN GENERAL
	582.52	Monocotyledoneae (in general)
	.522	Pandanales. Typhaceae: bur-reed, club-rush. Pandanaceae: screw-pines. Sparganiaceae
	.53	Heliobiae. Fluviales. Potamogetonineae. Naiadaceae. Juncaginaceae, etc. Water-weeds. Pond-weeds, etc.
	.536	Alismatineae. Water-plantains
+	.537	Butomineae. Flowering rushes, etc.
	.539	Hydrocharitaceae. Frog-bit. Water-thyme
	.541	Triuridales. Triuridaceae
	.542	Glumiflorae. Grasses. Reeds. Sedges, etc.
	.1	Gramineae. Grasses, true grasses
	.2	Cyperaceae. Reeds. Sedges
	.545	Principes. Plamae. Palms
	.546	Synanthae. Cyclanthaceae
	.547	Spathiflorae (Spadiciflorae)
	.1	Araceae. Arums. Cuckoo-pint. Sweet-flag
+	.2	Lemnaceae. Duckweeds
	.55/.56	Farinosae. Flagellarineae. Enantioblastae. Bromeliineae. Commelinineae. Pontederiineae. Philydrineae
+	.558	Eriocauloneae. Eriocaulaceae. Pipe-wort
	.564	Bromeliaceae. Pineapples
	.57	Liliiflorae. Liliales. Lilies, rushes, etc.
	.571	Juncineae. Juncaceae. Rushes
+	.572	Liliineae. Stemonaceae. ~~Haemodoraceae.~~ Dioscoreae, etc.
	.2	Liliaceae. Lilies
	.222	Melanthioideae. Meadow saffron. Autumn crocus
	.224	Asphodeloideae. Aloes. Asphodel
	.225	Allioideae. Leeks. Onions
	.226	Lilioideae. Lily. Tulips
	.227	Scilloideae. Scilla. Squill or sea-onion
	.228	Dracaenoideae. Yucca or Adam's needle
	.232	Asparagoideae. Convallaria or Lily-of-the-valley. Asparagus, etc.

582.572.4	Amarydillaceae. Narcissi, etc. ~~Daffodils. Snowdrops~~
.42	Amaryllidoideae. Narcissus. Daffodil. Snowdrop
.43	Agavoideae. Agave
.579	Iridineae
.2	Iridaceae. Crocus. Gladiolus. Iris or flag
.58	Scitamineae. Arillatae. Musales.
.582	Musaceae. Bananas
.583	Zingiberaceae. Ginger plant
.584	Cannaceae. ~~Arrowroot plant~~
.585	Marantaceae. Arrowroot plant
.59	Microspermae. Orchidales. Orchids
.592	Burmanniaceae. Burmanniineae
.594	Gynandr~~e~~ae
.2	Orchidaceae. Orchids
.4	Pleonandrae. Diandrae. Lady's slipper
.6	Monandrae. Vanilla plant
582.6/.9	DICOTYLEDONEAE
582.61	Dicotyledonae (in general)
582.62/.89	Archichlamydeae
582.62/.66	Apetalae. Monochlamydeae. Incompletae
.621	Verticillatae. Casuarinaceae
.622	Piperales. Peppers. Hydrostachyales
+ .6	Hydrostachyales
.623	Salicales. Willows. Osiers. Poplars. Aspens
.624	Garryales. Garryaceae
.625	Myricales. Sweet-gale or Bog-myrtle
.626	Balanopsidales. Balanopsidaceae
.627	Leitneriales. Leitneriaceae
.628	Juglandales. Juglandaceae. Walnut
.629	Batidales. Batidaceae
.631	Julianales. Julianaceae
.632	Fagales.
.1	Betulaceae. Betuleae: Birches, alders. Coryleae: hazels, hornbeams
.2	Fagaceae. Quercineae. Beeches. Oaks. Sweet (Spanish) chestnut
.635	Urticales. Rhoiptelaceae. Eucommiaceae, etc.
.1	Ulmaceae. Ulmeae. Elms
.3	Moraceae. Mulberry. Fig. Hop. Hemp, etc.
.5	Urticaceae. Urticeae. Nettles
.637	Podostemonales. Podostemonaceae
.639	Proteales. Proteaceae
.64	Santalales
+ .641	Santalineae. Sandal-wood. Olacaceae, etc.
+ .642	Myzodendraceae

582.65 Aristolochiales, Balanophorales & Polygonales

	582.651	Aristolochiales. Aristolochiaceae
	.2	Loranthinae. Loranthaceae. Mistletoe
	.653	Balanophorales. Balanophoraceae
	.657	Polygonales. Docks, rhubarb, sorrels, bistort, knotgrass, black bindweed, waterpepper, etc.
	.2	Polygonaceae
	.22	Eriodonoideae. Sub-family
	.24	Polgonoideae. Sub-family
	.26	Coccoloboideae. Sub-family
	.66	Centrospermae
	.661	Chenopodiineae
	.662	Chenopodiaceae. Goosefoot. Orache, etc.
	.663	Amaranthaceae foxtails
	.664	Phytolaccineae
	.1	Nyctagineceae
+	.665	Portulacineae
+	.666	Portulacaceae. Blinks, montia
+	.667/.668	Basellaceae. Dysphaiaceae
	.669	Caryophylleae. Carnations. Pinks. Campions, ragged robin. Sea purslane. Spurry. Pearl-, sand-, soap-, stitch-worts. Chickweeds, etc.

+	582.67/.89	Polypetalae. Choripetalae. Dialypetalae
	.67	Ranales
	.671	Nymphaeineae. Water-lilies. Ceratophylleae
	.672	Trochodendrineae. Cercidiphyllaceae. Judas tree
	.675	Ranunculineae. Buttercups, etc.
	.1	Ranunculaceae. Buttercup. Crowfoot. Anemones. Spearwort. Marsh-marigold, etc.
	.3	Berberideae. Barberry
+	.4	Menispermaceae. Moonseed

	582.677	Magnoliineae. Anonaceae. Monimiceae, etc.
	.1	Magnoliacae
	.7	Myresticaceae. Nutmeg
	.678	Lauraceae. Laurels. Hernandiaceae
	.1	Lauraceae. Laurels. (Cinnamon, camphor, etc.)
	-2	Hernandiaceae
	.68	Rhoeadales
	.682	Papaveraceae. Poppies. Fumariaceae
	.683	Capparidineae. Capparidaceae. Cruciferae
	.1	Capparidaceae
	.2	Cruciferae. Cresses, radish, mustard. Charlock. Cabbage. Turnip. Wall-flower. Stock, etc.
	.684	Resedineae. Mignonette. Dyers' weed, etc.
	.685	Moringineae. Ben nut
	.686	Bretschneiderineae
	.69	Sarraceniales
+	.691	Sarraceniaceae
	.692	Nepenthaceae. Pitcher plants
	.693	Droseraceae. Sun-dews
	.71	Rosales
	.714	Saxifragineae
	.715	Crassulaceae stonecrops. Navel-, penny-wort, etc.
	.716	Cephalotaceae
	.717	Saxifragaceae. Hydrangea. Ribesieae. Currants. ~~Goseberry, et~~ gooseberry, etc.
+	.718/.719	Pittosporaceae. Byblidaceae
+	.721/.722	Brunelliaceae. Cunoniaceae
+	.723/.724	Myrothamnaceae. Bruniaceae
	.725	Hamamelidaceae. Witch hazel, etc.
	.731	Rosineae
	.732	Platanaceae. Plane tree
	.734	Rosaceae. Roses. Pome, stone, berry fruits.

+	582.734.2	Spiraeoideae (sub-family)
	.3	Pomoideae (sub-family) Quince. Pear. Apple. Rowan. Hawthorn. Medlar
	.4	Rosoideae (sub-family). Raspberry. Blackberry, (bramble). Strawberry. Cinquefoil. Rose
	.6	Prunoideae (sub-family). Plum. Apricot. Damson. Almond. Peach. Cherry, etc.
	.736	Leguminosae. Pod fruits generally
	.737	Mimosoideae (sub-family)
+	.738	Caesalpinioideae (sub-family)
	.739	Papilionatae. Peas. Clovers. Trefoils. Vetches. Broom. Furze (gorse). Medicks, etc.
	.74	Pandales. Pandaceae
	.75	Geraniales
	~~.751~~	~~Crane's-bill, wood-sorrel, etc.~~
	.751	Geraniineae. Linaceae. Rutaceae, etc.
	.1	Oxalidaceae. Wood-sorrel
	.2	Geraniaceae. Stork's-bill
	.3	Tropaeolaceae. Nasturtiums
	.4	Linaceae. Flax
	.6	Erythroxylaceae. Coca
	.7	Zygophyllaceae
	.8	Gneoraceae
	.9	Rutaceae. Rue. Citrous fruits. Lemon. Orange, etc.
	.75~~5~~2.1	Simarubaceae
	.2	Burseraceae. Balsam-tree
	.3	Meliaceae
	.4	Acaniaceae
	.754	Malpighiineae
	.755	Polygalineae. Milkworts. Tremandraceae
	.756	Dichapetalineae

	582.757	Tricoccae. Euphorbiaceae. Daphniphyllaceae
	.2	Euphorbiaceae. Spurges, etc.
	.759	Callitrichineae. Water-starworts
	.76/.77	Sapindales. Celastrales
	.761	Buxineae. Buxaceae. Box
	.762	Empetrineae. Empetraceae. Crowberry
	.763	Coriariineae. Coriariaceae
	.764	Limnanthineae. Limnanthaceae
	.765	Anacardiineae. Anacardiaceae. Sumac, etc.
	.766	Celatrineae. Ilicineae
+	.4	Aquifoliaceae. Ilicoideae. Holly
+	.5	Celastraceae. Spindle-tree
	.771	Icaciniieae. Icacinaceae
	.772	Sapindineae
	.2	Aceraceae. Maple. Sycamore
	.3	Hippocastanaceae. Horse-chestnut
	.4	Sapindaceae. Soap-berry tree
	.773	Sabiineae. Sabiaceae
	.774	Melianthineae. Melianthaceae
	.775	Didiereineae. Didiereaceae
	.776	Balsaminineae. Balsaminaceae. Balsams
	.78	Rhamnales
	.782	Rhamnaceae. Buckthorns. Black alders
	.783	Vitaceae. Ampelidaceae. Vines
	.79	Malvales
	.791	Elaeocarpineae. Elaeocarpaceae
	.792	Chlaenineae. Chlaenaceae
	.793	Malvineae
+	.794	Gonystilaceae
	.795	Tiliaceae. Linden or lime(-trees)
	.796	Malvaceae. Mallows
	.797	Bo^{mb}[illegible]ceae. Cotton-tree

582.798 Sterculiaceae. Cacao & Cola (trees)

.799 Scytopetalineae. Scytopetalaceae

.81 Parietales. (Cistales)

+ .812 Theineae

+ 819 Cryocaraceae. Butter-nut

+ .822 Quiinaceae

.823 Theaceae. Camelliaceae. Tea plants

.824 Guttiferae

.825 Dipterocarpaceae. Winged-fruit

.831 Tamariscineae. Tamarisks. Elatineae. Water-worts

.835 Cistineae. Rock-roses. Bixaceae. Annatto

.839 Cochlospermineae

.842 Flacourtiineae

.1 Canellaceae. Winteranaceae

.2 Violaceae. Violets

.4 Stachyuraceae

.7 Passifloraceae. Passion-flower

.843 Papayineae. Caricaceae. Papaw

.844 Loasineae. Loasaceae

.845 Batiscineae. Batiscaceae

.846 Begoniineae. Begoniaceae

.847 Ancistrocladineae

.85 Opuntiales. Cactaceae. Cactuses

.852 ~~Cactaceae~~. Cactuses

.2 Malocospermae (sub-family). Giant cactus, etc.

.4 Sclerospermae (sub-family), Opuntia

.86 Myrtiflorae. Myrtales

.861 Thymelaeineae

.865 Thymelaeaceae. Daphne, spurge laurel

.866 Eleagnaceae. Oleasters. Sea buckthorns

.871 Myrtineae

.872 Lythraceae. Purple-loosestrife. Hyssop, etc.

	582.876	Punicaceae. Pomegranates
+	.878	Rhizophoraceae. Mangroves
	.883	Myrtaceae. Myrtles, etc.
	.2	Myrtoideae (sub-family). Clove (tree) Pimento (all spice) tree. Myrtle
	.4	Leptospermoideae (sub-family). Eucalyptus
	.884	Melastomataceae
	.885	Hydrocaryaceae. Horn-nut
	.886	Onagraceae. (Oenotheraceae). Evening primrose. Willow herb. Fuchsia
	.887	Halorrhagaceae. Water-milfoils
	.888	Hippuridineae. Mare's-tails. Thelygonaceae
	.889	Cynomoriineae. Cynomoriaceae
	.89	Umbelliflorae
	.892	Araliaceae. Ivy, common ivy
	.893	Umbelliferae. Hogweeds, etc.
+	.2	Hydrocotyloideae (sub-family)
+	.4	Saniculoideae (sub-family). Sanicles
	.6	Apioideae (sub-family). Myrrh. Chervil. Coriander. Hemlock. Caraway. Celery. Parsley. Fennel. Carrots. Parsnip (wild)
	.894	Cornaceae. Cornel. Dogwood
	582.9	Metachlamydeae. Sympetalae
	.911	Diapensiales. Diapensiaceae
	.912	Ericales
+	.1	Ericineae
	.3	Pyrolaceae. Wintergreen
	.4	Ericaceae. Heaths
	.42	Rhododendroideae (sub-family). Rhododendron. Azalea
	.44	Arbutoideae (sub-family). Arbutus
+	.46	Vaccinioideae (sub-family). Bilberry (whortle berry) Cranberry

582.912.48	Ericoideae (sub-family). Heather. Ling
.7	Epacridineae. Epacridaceae. Australian heaths
.918	Primulales. Theophrastaceae. Myrsinaceae
.3	Primulaceae. Primroses. Cowslips. Pimpernels. Yellow-loosestrife, etc.
.919	Plumbaginales. Lead-worts. Sea-lavenders, -pinks (thrift)
.92	Ebenales. Sapotineae. Diospyrineae
.921/.922	Sapotineae. Sapotaceae
.924/.925	Diospyrineae. Ebenaceae. Ebony
.93	Contortae
.931	Oleineae. Oleaceae. Olives, etc.
.4	Oleoideae (sub-family). Ash. Forsythia. Lilac. Syringa. Olive
.6	Jasminoideae (sub-family). Jasmines
.933	Gentianineae
.935	Loganiaceae, Nux vomica
.936	Gentianaceae. Gentians, etc.
.2	Gentianoideae (sub-family). Centaury. Gentian
.4	Menyanthoideae (sub-family). Buck bean. Marsh trefoil
.937	Apocynaceae
.2	Plumieroideae (sub-family). Periwinkle
.4	Echitoideae (sub-family). Oleander
.938	Asclepiadaceae. Silk-weed
.94	Tubiflorae
.941	Convolvulineae
.942	Convolvulaceae. Bindweeds. Dodders, etc.
.943	Polemoniaceae. Jacob's ladder
.947	Lennoineae. Lennoaceae
.948	Boragininese. Myosotes, etc.
.1	Hydrophyllaceae
.2	Boraginaceae. Borages. Bugloss. Comfrey. Lungwort. Myosotes (forget-me-not)

582.949	Verbenineae
.1	Verbenaceae. Vervains. Verbena
.2	Labiatae. Mints. Dead-nettles, etc.
.22	Ajugoideae (sub-family). Thyme. Rosemary
.25	Scutellarioideae (sub-family)
.26	Lavanduloideae (sub-family). Lavender
.27	Stachyoideae (sub-family). Deadnettle. Sage. Hyssop. Marjoram. Thyme. (Pepper)-mint
.28	Ocimoideae (sub-family)
.951	Solanineae
.2	Nolanaceae
.4	Solanaceae. (Deadly) nightshades. Henbrane. Paprica Tomato. Potato. Tobacco plant. Petunia
.6	Scrophulariaceae
.62	Pseudosolanoideae (sub.family). Mullein
.63	Antirrhinoideae (sub-family). Antirrhinum. Snapdragon
.64	Rhinanthoideae (sub-family). Speedwell (veronica). Foxglove
.8	Bignoniaceae. Calabash
.952.2	Pedaliaceae. Sesame
+ .6	Orobanchaceae. Broom-rape
.8	Gesneriaceae. Cyrtandroideae
.953.2	Columelliaceae
+ .4	Lentibulariaceae. Butterwort
.6	Globulariaceae. Globe-daisy
.955	Acanthineae. Acanthaceae
.956	Myoporineae. Myoporaceae.
.957	Phrymineae. Phrymaceae
.96	Plantaginales. Plantaginaceae. Plantains. Littorel, etc.
.97	Rubiales
.972	Rubiaceae. Madders, etc.
.972.2	Cinchonoideae (sub-family). Cinchona (tree)
.3	Coffeoideae (sub-family). Coffee (tree). Woodruff. Bedstraw. Madder, etc.

	582.973	Caprifoliaceae. Honeysuckle. Elder. Guelder-rose.(viburnum). Snowberry
	.974	Adoxaceae. Moschatel
	.975	Valerianaceae. Valerians. Cornasalad
	.977	Dipsacaceae. Teasels. Scabious
	.98	Cucurbitales. Cucurbitaceae. Bryony. Melons. Gourds. Cucumbers
	.99	Campanulatae. Compositae
	.992	Campanulaceae. Harebells. Rampions. Lobelias
+	.994/.995	Goodeniaceae. Brunoniaceae
+	.996	Stylidiaceae. Candolleaceae
	.998	Compositae. Thistles. Daisies. Dandelions, etc.
	.2	Tubuliflorae. Daisies. Asters. Edelweis, Sunflower. Dahlia. Chrysnnthemum. Wormwood. Arnica. Bur. Thistle. Artichoke. Corndlower
	.4	Liguliflorae. Chicory. Endives. Hawweed. Dandelion. Lettuce. Salsify
	.999	Other dicotyledons. Anomaliae

59 ZOOLOGY

→ 636/639

59.00 Zoological theory, practice, research, etc. ≅ .00 (Aux.I.i)
.001 Fundamental ideas. Definitions. Classifications. Research
.006 Space & accommodation. Zoological gardens, reserves, etc.
→ 502.74 ; 712.25 ; 727.6

59.0 Special auxiliaries - see also at 591
.061 External characteristics (of animals). Form, colour, etc.
≅ 575.061
.08 Investigation techniques. Experiments. Observations
≅ 57.08

591 GENERAL ZOOLOGY. ANIMAL BIOLOGY
-2/-9 Correlations with systematic zoology and taxonomy, animal phyla, classes, orders, families, genera, species, etc.
≅ 592/599, e.g.
591.57-578 Mimicry in butterflies,etc. (Lepidoptera 595.78)
.04 Physical & chemical factors. Physics & chemistry of cells and organisms in general. Absorption, etc.
.041 Effect of nucleus and protoplasm. Irritability in general
→ 577.25 ; 591.181
.044 *Effect of ambient or environmental factors on cells and* organisms. Osmosis. Tropisms: heliotropism, phototropism, Effects of poisons, air pressure, etc.
→ 591.185 ; 591.5
.046 Co-operation, co-ordination of cells and organisms. Division of labour
.047 Transport and circulation of substances in the body
→ 591.41
.05 Biochemistry, physiological chemistry and metabolism of animals in general. Composition of the (animal) body
→ 591.133.2 ~~(anabolism)~~; 591.149 ~~(Excretion,etc.)~~

591.1 ANIMAL PHYSIOLOGY. ZOOPHYSIOLOGY
→ 612 (Human & comparative physiology)

591.11 Body fluids (generally). Blood. Circulation. Haemolymph
.111 Chemical and physical properties of blood
.1 Blood constituents: erythrocytes, red cells; leucocytes, white cells; thrombocytes, blood-platelets; blood fluid, plasma, serum, fibrin
.2 Blood pigments: haemoglobin, haemocyanin, echinochrome,chlorocruorin, haemerythrin, achroglobin, etc.
.3 Coagulation of the blood. Haemolysis
.4 Physical properties of the blood
.7 Phagocytosis
.8 Reticulo-endothelial system

591.112	Blood circulation in animals
.1	Heart muscle physiology, stimulation, irritability. Frequency of the heart beat
.2	Heart activity. Valves. Cardiac sounds. Heart beat. Electrocardiogram studies
.3	Blood pressure and flow
.4	Vascular nerves & innervation. Vasomotors. Pressor-receptor nerves
.5	Blood volume. Circulatory period
.6	Blood fluctuations, non-circulatory
.113	Haemolymph. Lymph of invertebrates Cf. 591.144 (Lymph of vertebrates)
.115	Internal, intracellular fluid pressure. Turgor
591.12	Respiration. Gills, lungs, etc.
.121	General physiology of respiration in animals
.122	Respiration over the whole body surface. Cutaneous respiration
.123	Respiration through water-containing vessels or structures
.124	Intramolecular respiration
.125	Branchial respiration. Branchiae. Gills
.126	Tracheal respiration. Tracheae
.127	Pulmonary respiration. Lung function
.128	Animal heat Cf. 612.5 (Human & comparative physiology)
591.13	Nutrition and inanition. Digestion. Food. Growth, etc. → 591.53 (Nourishment & food)
.131	Capture, seizure and mastication (chewing) of food.
.1	Devouring. The act of eating. Method of food intake
.2	Killing, destruction of the nutrient animal. Cf. 591.554
.3	Mastication. Chewing. Saliva, and salivary juices and acids. Swallowing
.4	Oral digestion. Secretions dissolving food outside the body.
.132	Digestion. → 577.15 (Enzymes)
.2	Physiology of the stomach. Gastric juices
.3	Rumination. Chewing the cud
.4	Vomiting
.5	Physiology of the intestine & mid-gut. Intestinal juices. Pancreatic juices. Bile or gall
.8	Expulsion of indigestible food constituents through the mouth
.133	Physiological chemistry of foods and nutrition. Food assimilation, metabolism and reserves
.1	Foods. Nutrients. Proteins Fat. Carbohydrates, etc.
.2	Synthetic ase metabolism. Assimilation. Enzymes. Anabolism and catabolism
.3	Food reserves. Food storage in the animal body
.134	Growth: factors, rate, etc. Body weight and size
.135	Physiologyof the hind-gut, large intestine and rectum. Evacuation. Defaecation
.137	Nutrient intake or uptake and digestion in Protozoa
.139	Senescence. Ageing. Life-span. Rejuvenation. Death & its causes

591.14	**Secretion. Excretion. Gland function. Lymph**
.141	Skin secretions. Cutaneous or skin glands function. Scent, ~~poison,~~ sweat and other surface glands
.142	Secretion(s) in Protozoa. Trichites. Trichocysts, etc.
.143	Serous fluids and cavities
.144	Lymphatic system, lymph and lymph glands. Cf. 591.113
.145	Poisons & poison glands. Venoms. Anti-venoms
.146	Mammary gland secretions. Milk. Lactation
.147	Internal secretion(s). Endocrine gland function. Hormones. Adrenalin, insulin, sex hormones, etc. → 577.17 (Biochemistry of hormones)
.148	Luminescence. Bioluminescence
.149	Excretion(s). Analytical metabolism. Urine. Faeces. Contractile vacuoles in Protozoa, etc.
591.15	**Variation. Heredity** → 575.1/.2 (Genetics, heredity, evolution, etc.)
.151	General polymorphism. Dimorphism
.152	Geographical variation. Acclimatization
.153	Heterophagous variation
.155	Mimicry. Imitative variation → 591.57 (Protection)
.156	Sexual polymorphism
.157	Colour variation. Coloration. Albinism. Melanism. Cf. 591.176
.158	Hybrid or bastard forms. Mongrels. Cross-breeds. → 591.37 Crossing
.159	Monstrous forms. Monstrosities. Anomalies
591.16	**Reproduction. Biogenesis. Development. Procreation. Gestation**
.161	Abiogenesis. Spontaneous generation → 576.11
.162	Parthenogenesis
.163	Paedogenesis. Reproduction in larval or pupal stages
.164	Division (in the Protozoa)
.165	Budding. Vegetative, asexual reproduction
.166	Gonochorism. Sexual distinction and reproduction generally
.1	Mating. Copulation
.5	Alternation of generations
.167	Hermaphroditism: cross-fertilization(allogamy); self-fertilization (autogamy)
.169	Regeneration and repair
.8	Autotomy. Self-amputation. Cf. 591.573
591.17	**Movement. Locomotion. Skeletal mechanics. Muscle & skin**
.171	Movement by means of legs or limbs: walking, running, hopping, jumping, climbing, trotting, galloping, ambling, etc.
.172	Crawling. Creeping, etc. (e.g. worms, snakes) lew
.173	Swimming, locomotion in water
.174	Flight. Flying: fluttering, soaring, hovering, gliding, etc.
.175	Muscle physiology. Cf. 591.182
.176	Skin physiology. Pigmentation. Colour. Cf. 591.157; 591.572
.177	Skeletal and joint mechanics
.178	Protoplasmic and ciliary movement

591.18	Nervous system: functions and activity → 591.51; 612.8
.181	Nerve physiology, excitability & irritability (in general). Electrophysiology. Automatism. Unconditioned reflexes → 591.041
.182	Nerves and muscles. Tonus. Reflex movements. *Cf.* 591.175
.185	Sensitivity & sensory perception. Receptors. Tropisms → 591.044
.1	Orientation sense and capability
.2	Mechanical sensitivity. Tactile & muscular senses. Touch. Sense of gravity, etc.
.3	Chemical sensitivity. Chemotaxis. Taste & smell senses
.5	Hearing. Sense of sound
.6	Vision. Sight. Sense of light. Phototaxis
.186	Hypnosis
.187	Excitability, irritability in Protozoa: chemo-, thermo- and phototaxis; galvanotaxis; geotaxis
591.2	DISEASES, INJURIES, MALFORMATIONS OF ANIMALS. ZOOPATHOLOGY ≅ 591.4. *Cf.* 619
:592/599	Diseases of specific animals (or 592/599—12)
:616	Specific diseases, e.g. :616.9 Infectious diseases
.21/.29	Diseases of individual organs, systems or parts ≅ 591.41/49
591.3	ANIMAL EMBRYOLOGY AND ONTOGENY. DEVELOPMENT STAGES. LIFE CYCLE OR HISTORY
.31	Primary development of the egg or ovum: fertilization, segmentation, morula, blastula
.32	Formation of the embryonic rudiment: gastrula, germinal layers, blastophore, primitive sex cells
.33	Embryonic development without the larval stage: ecto-, ento- and mesoderm; embryonic appendages
.34	Metamorphosis. Larval stage. Larvae
.341	Swarming larvae (Coelenterata, Mollusca, Echinodermae)
.342	Larval forms of Arthropoda & insects: caterpillars, cocoons, etc.
.343	Larval forms of Tunicata & vertebrates: tadpoles, etc.
.35	Young animals
.02	Twins. Siblings, etc.
.351	Period of development up to the adult, sexually mature stage
.36	Adult, sexually mature animals. Imago, etc.
.366	Period between mating, rutting or breeding seasons. Gestation period. Suckling or nursing period
.37	Hybridization. Crossing. *Cf.* 591.158
.38	Inbreeding
.39	Experimental embryology. Mechanics of development → 59.08
.391	Experiments on ova and spermatozoa: artificial insemination, etc.

591.392	Experimental modifications of embryonic development. Determination of powers of development. Experimental teratology: artifical monstrosities and tumours
.393	Experiments on larvae. Experimental modification of metamorphosis
.398	Experiments on surviving embryonic parts
591.4	ANIMAL ANATOMY. ORGANOLOGY. ZOOTOMY → 591.8; 611
.068	
.1	Functional alteration, change or modification
.2	Atrophy (of organs or parts)
.3	Transitory organs
.4	Rudimentary organs
.5	Homologous organs
.6	Analogous organs
591.41	Circulatory organs. Angeiology
.411	Pericardium
.412	Heart (Cardium)
.413	Vessels. Arteries. Aorta
.414	Veins
.415	Capillaries
.416	Vascular paths of lower animals. Gastro-vascular system
.417	Ambulacral-vascular system
591.42	Respiratory organs
.421	Nose. Proboscis. *Cf.* 591.431.1
.422	Throat. Larynx. ~~Gills.~~ Syrinx (of birds), etc.
.423	Trachea. Bronchi. Breathing tubes (of vertebrates)
.424	Lungs
.425	Pleura
.426	Diaphragm
.428	Branchiae, branchial arches. Gills
59 .429	Other respiratory organs. Trachea (invertebrates). Swim-bladder. Siphons (molluscs), etc.
591.43	Nutritive and digestive organs
.430	Nutritive organs in Protozoa. Cytostoma. Contractile vacuoles, etc.
.431	Mouth. Oral organs and parts
.1	Snout or proboscis for seizing food. *Cf.* 591.421
.2	Mouth appendages of Arthropoda, insects
.3	Tongue. Radula (of molluscs)
.4	Teeth
.5	Horny formations for seizing food. Beaks, etc. *Cf.* 591.478
.6	Oral glands. Salivary glands. Poison glands (oral). *Cf.* 591.145
.7	Cheek pouches
.432	Pharynx. Oesophagus. Crop. Gullet. Foregut of Arthropods
.433	Stomach. Ventriculus. Gastric cavity & glands.
.434	Intestines. Gut. Mesenteron. Caecum. Rectum. Allantois
.435	Anus. Cloaca. Ink sac of Cephalopoda
.436	Liver (hepar). Midgut glands of invertebrates
.437	Pancreas (sweatbread) and glands

591.438 Coelome. Abdominal cavity. Peritoneum. Pericardial glands
.439 Adipose (fatty) bodies

591.44 Haemopoietic, lymphatic and endocrine systems (of invertebrates)
.441 Spleen
.442 Lymphatic vessels
.443 Thymus gland
.444 Thyroid and parathyroid glands
.445 Adrenal or suprarenal glands (cortex & medulla)
.446 Lymph glands

591.46 Urogenital or genito-urinary system. Sex organs and glands
.461 Kidneys, nephridia and analogous organs
.462 Urinary ducts or ureters. Bladder or vesica urinaria
.463 Male genitalia, glands, etc.
.1 Sperm and semen. Spermatozoa. Spermatogenesis
.2 Testis, testicles
.3 Scrotum, scrotal appendages
.4 Prostate
.5 Spermatophores
.6 Vas deferens, spermatic duct
.464 Male copulatory organs and secondary sex characteristics
.1 Penis. Cyrrhus
.3 Bulbus. Hectocotylus. Pterygopodia. Spadix
.6 Male secondary sexual characteristics, e.g. for holding, locating and exciting the female. *Cf.* 591.551
.465 Female genitalia (in general)
.1 Oogenetic phenomena
.11 Ova or egg
.12 Oogenesis: follicles, oogonia, oocytes
.2 Oviduct. Egg/milk shell, cocoon, etc.
.3 Gonads. Ovary. Ovariotestis
.466 Uterus or womb. Uterine glands
.467 Female copulatory organs
.1 Vagina
.2 Vulva. Hymen
.3 Ovipositor
.4 Seminal pouch, receptaculum seminis
.469 Mammary, milk-secreting, lactation glands. Teats. Udders, etc.

591.47 Organs of movement. ~~Skeletal~~ Locomotor, skeletal, muscular and integumentary systems. *Cf.* 591.17
.471 Skeletal system. Skeleton. Osteology. Bones, cranium, etc.
.1 Protozoal skeletal formations: scales, endo-skeleton, etc.
.2 Invertebrate skeletons
.21 of Spongaria. Spicules
.22 of Cnidaria: support lamellae, coral formations
.23 of Echinoderma. Spines
.24 of Mollusca: derculum, pearls, shells, scallops, etc.

	591.471.25	of Brachiopoda: shells, lime spicules
	.26	of Annelida: shells
	.27	of Arthropoda, insects, etc.: chitinous exoskeleton, larval cocoons
	.28	of Tunicata. Chorda dorsalis. Notochord
	.29	of other invertebrates
	.3	Vertebrate skeletons. Osteology. Bones
	.31	Dermal skeleton. Scales, ganoid & placoid. Cutaneous teeth. Bony plates. *Cf.* 591.431.4
	.32	Vertebral column. Spinal cord. *Cf.* 591.471.28
	.33	Ribs and breast-plate
	.34	Pectoral or shoulder girdle
	.35	Pelvic girdle
	.36/37	Limb bones. *Cf.* 591.498
	.36	Unpaired limbs
	.37	Paired limbs
	.4	Skull. Cranium
	.41	Cartilaginous skull capsule (fish)
	.42	Skull bones (in general)
	.43	Visceral cranium. Facial skull bones
	.44	Cerebral cranium. Brain pan
	.472	Joints. Articulations. Ligaments
	.473	Muscular system. Myology. Muscle(s)
	.1	Fibrils of unicellular animals
	.2	Invertebrate musculature. Feet of molluscs, etc.
	.3	Vertebrate musculature
+	.31	Trunk musculature. Voluntary muscle
+	.32	Visceral musculature. Involuntary muscle
	.9	Electric organs
	.474	Tendons
	.475	Bursae, mucous sacs
	.476	Connective tissue. Parenchyma. Mesoderm. Mesenchyma → 591.82 (Histology)
	.477	Skin. Integument. Cutaneous glands
	.1	Ectoderm. Mantle (in Crustacea & Mollusca)
	.2	Entoderm
	.3	Cutaneous glands: sweat, slime, odour, tear, milk, spinning, etc.
	.4	Poison-exuding organs. Poison stings, etc. → 591.145 (Poisons, glands)
	.9	Luminous organs
	.478	Horny formations. Hair. Bristles. Nails. Claws. Feathers. Scales (of reptiles). Spurs, etc. *Cf.* 591.431.5
+	.8	Horns. Spurs
	.479	Pseudopodia. Flagellae. Cilia, etc.
	591.48	Nervous system of animals → 591.88 (Histology)
	.481	Central nervous system
	.1	Brain. Encephalon. Cerebrum
	.2	Hypophysis. Pituitary gland

591.481.3	Epiphysis. Pineal gland or body
.4	Ganglia in general. Cerebral ganglia
.8	Neuronemes
.482	Spinal cord (and ganglia)
.483	Peripheral nervous system. Sympathetic (and parasympathetic) nervous systems. Nerves
.484	Sight organs. Vision cells. Eyes
.6	Vertebrate eyes: lens, cornea, iris, etc.
.7	Parietal eyes
.485	Hearing organs. Ears
.486	Smell or scent organs. Nose. Cf. 591.421
.487	Taste organs. Chemical sense organs in general. Cf.591.431.3
.488	Mechanical sense organs: of temperature, of touch, of balance or equilibrium and other senses
~~.489~~	~~Spinal ganglia~~
591.49	Somatology, external morphology. Body shape & structure
.491	Personae corporum. Zoides. Proglottides. Giant and dwarf forms
.492	Antimeres. Parameres. Metameres. Body symmetry
.493	Head
.494	Cephalothorax. Neck
.495	Thorax. Chest
.496	Abdomen. After-body
.497	Tail
.498	Limbs, extremities, legs, feet. Antennae. Feelers, Wings (of birds, etc.)
.499	Other body appendages. Wing sheaths. Wings (of insects). Tentacles
591.5	ANIMAL ECOLOGY & BIONOMY. BEHAVIOUR, HABITS AND PERSONALITY OF ANIMALS
591.51	Animal psychology. Individual behaviour. Intelligence
.511	Theory and philosophy of animal psychology. The animal soul
.512	Instinct and instinctive ~~phenomena~~ activities, including social and migratory instincts
.513	Learning ability or capacity: experience, reactions, etc.
591.52	The animal in relation to its environment.
.521	Habitations. Lairs. Dens. Burrows. Nests (as habitations) → 591.563
.522	Habitat
.523	Single migrations. Cf. 591.543.4
.524	Special adaptations of animal species to environment
.1	Aquatic animals (sea & freshwater). Benthos. Plankton. Nekton. Shore animals
.2	Land animals: landbound, soaring, flying
.525	Regulatory adaptations to altered life conditions
.526	Population density of a type, genus or species. Population growth index. Extinction index

591.53 Food and feeding habits of animals
→ 591.13 (Nutrition & digestion)

.063 Food or nutritive exchange

.531 Animals according to their preferred food
→ 591.13 ; 591.557

.1 Herbivorous, plant-or vegetable-eating animals generally

.2 Carnivorous, flesh-eating animals generally. Beasts of prey
→ 599.74 (Carnivora, taxonomy)
.22/.29 according to prey or animals eaten
≅ 592/599, e.g. 591.531.297 Insect-eaters
(but cf. 599.33 Insectivora)

.3 Omnivorous, plant-& flesh-eating animals. Cf. 591.532

.4 Animals feeding on exceptional or unusual foods, e.g.
sand, mud, dust, mould, carrion or offal, dung & hair

.5 Holophytic animals
→ 591.557

.532 Animals according to range or selectivity of their food,
e.g. polyphagous or monophagous animals

.536 Collecting and storing of food supplies

.538 Food requirements as determined by mode of life

591.54 Ambient and seasonal factors in animal life

.541 Water

.542 Light. Cave and deep-sea animals. Diurnal and nocturnal
animals. Sleep

.543 Climatic factors: temperature, humidity, wind, etc.

.4 Climatic changes. Seasonal habits (use "32...")

.41 Dormancy, continuity of embryos or eggs. Encystment

.42 Aestivation (summer torpor). Hibernation(winter sleep
or torpor)

.43 Regular migration. Bird migration, etc.

.544 Cosmic influences: sun, moon, radiation or rays

.545 Season(s) and reproduction. Spawning-time. Heat or rutting season
→ 591.551

591.55 Social and community life of animals

.551 Sexual relations. Courtship. ~~(display, fighting~~ Mating. Heat
or rut. Male display, fights, etc.
→ 591.464.6 ; 591.545 ; 591.58

.552 Relations between members of a species. Herd, colony and
'state' formations. ~~Herd-instinct.~~ Division of labour

.553 Biocoenosis. Animal communities
e.g. ~~591.553—412.1 Oyster-beds (or :594.124)~~
591.553—36 Coral-reefs (or :593.6)

.554 Fights and fighting for food

.555 Sources and motives of sociological phenomena in animals
≅ 301.15, e.g.

.13 Preservation or survival instincts

.15 Protective or destructive instincts

.557 Relations between individuals of different species.
Commensalism. Parasitism. Symbiosis, Synoekism

+ .2 Relations with, behaviour towards man. Cf. 636

	591.557.6	Symbiosis (mutually beneficial partnership)
	.7	Synoecia or synoekety (partnership beneficial to the guest without detriment to the host)
	.8	Parasitism (partnership beneficial to the parasite, but detrimental to the host)
	591.56	Nurture. Care of & provision for offspring and brood
	.561	Passive nurture, provision and care
	.562	Active nurture, provision and care (in general)
	.563	Nest building. Cocoons. Insect structures, ant-hills, etc.
	.564	Depositing eggs or embryos in the feeding place
	.565	Retaining eggs or embryos in, or on, the body of the parent animal
	.566	Skin folds, sacs or pockets. Pouches (of marsupials)
	.567	Viviparity, viviparous animals. Ovoviviparity
	.568	Tending and feeding the young
	591.57	Protection. Means of defence and attack
	.571	Behaviour of animals in face of danger: escape or flight, feigning death, concealment, etc.
	.572	Body protection, defence adaptations and reactions
	.1	Armouring or housing: shells, scales, etc.
	.4	Slime or wax emission
	.5	Stings, poisonous glands & secretions, deterrent fluids, etc., e.g. sepia. Cf. 591.145
	.6	Sounds, cries, hissing, etc. (of fright or warning)
	.7	Visual defence reactions, colour changes, etc. Cf. 591.576
	.8	Mimicry. Imitative resemblance. Protective imitation
	.573	Autotomy as a protective measure
	.574	Cleanliness
	.576	Protective colouring and camouflage in animals Cf. 591.572.7
	.577	Means of attack. Offensive weapons of animals e.g. 597.554.2-157.7 Electric organs of electric eels
	591.58	Communication & expression by sounds or ultrasonic vibrations, mime or other signs, smell, touch or chemical senses
+	.582	By sound or ultrasonic vibrations. Song. Chirping. Cries and other animal vocal expression
+	.584	By signs or movements. Mime, etc.
+	.586	By contact or touch. Feelers, etc.
	591.6	ECONOMIC OR APPLIED ZOOLOGY → 636; 638; 639
	591.61	Usefulness, utility of animals
	.611	Hunting and capture of animals
	.612	Keeping in captivity. Domestication → 636, esp. 636.08
	.613	Breeding (and training)
	.615	Protection, shelter & care. Winter feeding

591.617 Deliberate use of animals by man to combat other animals

.618 Deliberate use of animals by man to combat plants, weeds, etc.

.619 Diseases, injuries and pests of useful & harmful animals
→ 591.2 ; 636.089 (for preference)

591.65 Harmful animals

.67 Animals causing or spreading disease. Pests. Vermin

.68 Animals attacking inanimate matter, materials, etc.

.69 Animal parasites (on animals)
→ 576.89
Use :591.69 or substituted -2/-9 to denote first the host animal and then the parasite, e.g.
591.69 : 599.723 : 595.132 Nematode parasites
or 591.69 - 972.3 - 513.2 of horses & equines

591.8 ANIMAL HISTOLOGY AND CYTOLOGY
→ 576.3/7 ; 611-018
For histology of specific organs, use : 591.4...

591.81 Cell histology, cytology of animals

.82 Connective tissue

.83 Cartilage, cartilaginous tissue

.84 Bone histology, bone tissue

.85 Blood and lymph histology. Chromatophores, etc.

.86 Muscle histology, muscular tissue

.87 Epithelial tissue of animals

.88 Neurohistology, nerve tissue of animals. Nerve cells. Nerve fibres

591.9 GEOGRAPHICAL ZOOLOGY. ZOOGEOGRAPHY. FAUNA. DISTRIBUTION OF ANIMALS
→ 591.525 ; 911.2
Divide by (1/9), e.g.

(23.03) High mountain fauna
(211) Polar fauna
(252) Desert and steppe fauna
(26) Marine fauna, sea fauna
(6) African fauna
(6-926.5) Central African & Congo Basin fauna

591.91 Ways or means by which fauna are distributed

.92 Checks or hindrances to distribution of fauna

.93 Significance of the past in distribution of fauna

.94 Relic fauna

.95 Man's intervention and encroachment on fauna. Extermination and extinction of fauna
→ 575.79 ; 577.4

592/599 SYSTEMATIC ZOOLOGY. ANIMAL TAXONOMY

592/599-1 Correlations with general zoology & animal biology
≅ 591, e.g. 595.78-157 Butterflies, protection & mimicry

592 INVERTEBRATA (IN GENERAL)

593.1 PROTOZOA (UNICELLULAR ANIMALS)

593.11 Rhizopoda. Sarcodina

.12 Amoebaea. Amoebina. Foraminifera
.13 Heliozoa (mainly freshwater plankton)
.14 Radiolaria (mainly marine plankton)

593.16 Mastigophora or Flagellata. Phyto- & Zoomastigina
→ 582.25

~~.161 Protomonadina, incl. Trypanosomatidae~~
.161 Euflagellata, incl. Protomonadina & Trypanosomatidae, Polymastigina, Phytomonadina ~~& Chlamydomonadina~~
.3 Euglenidae. Euglenoidina
.4 Chromomonadina
.5 Phytomonadina. Chlamydomonadina. Volvocina
.52 Volvocidae. Volvocina

.162 Dinoflagellata. Peridiniidae
.163 Cystoflagellata. Noctiluca

593.17 Ciliophora (Infusoria, Ciliata & Suctoria)
.171 Holotricha (Paramaeciidae, etc.)
.172 Heterotricha (Stentoridae, etc.)
.173 Oligotricha
.174 Hypotricha
.175 Peritricha
.176 Suctoria

593.19 Sporozoa. Telosporidia. Neosporidia
.191 Gregarinidia
.192 Coccidiomorpha
.193 Sarcosporidia
.194 Myxosporidia
.195 Microsporidia

593.3 METAZOA (MULTICELLULAR ANIMALS).
Coelenterata (generally). But → 593.5/8

593.4 PARAZOA. PORIFERA (SPONGIARIA), incl.
Demospongiae, Hexactinellida & Calcarea

.41 Myxospongida. Jelly sponges
.42 Keratosa. Ceratospongida. Bath sponges, etc.
.43 Monactinellida. Monaxonida. Halichondrinae. Freshwater sponges. Leather sponges
.44 Tetractinellida
.45 Hexactinellida
.46 Calcarea. Calcispongiae

593.5/8 Coelenterata

593.5	**Cnidaria (in general)** incl. 593.6/7. Cf. 593.8
593.6	**Actinozoa or Anthozoa.** Corals, sea-anemones, etc.
.61	Rugosa. Tetracorallia
.62	Alcyonaria. Octocorallia
.63	Zoantharia. Hexacorallia
.65	Actinaria. Sea-anemones
.66	Madreporaria
.67	Tabulata
593.7	**Hydrozoa & Scyphozoa.** Polyps, medusae, jelly-fish
593.71	Hydroidea (Hydrozoa proper, cf. 593.73)
.711	Hydrariae. Hydrida. Freshwater polyps
.712	Tubulariae (Anthomedusae). Gymnoblastea
.714	Campanulariae (Leptomedusae). Calyptoblastea
.715	Trachymedusae. Trachylina
.719	Graptolithina. Graptolites (extinct)
.78	Siphonophora. Floating polyps, e.g. Portuguese man-of-war
593.73	**Scyphozoa.** Scyphomedusae. Jelly-fish. Acalephae.
.74	Stauromedusae. Calycozoa
.75	Rhizostomeae
.76	Lobomedusae. Cubomedusae
.77	Discomedusae
593.8	**Ctenophora.** Comb-bearers or -jellies. Sea-gooseberries
.81/83	Tentaculata
+ .81	Cydippida
+ .82	Lobata
+ .83	Cestoidea. Venus's girdle
+ .84	Nuda. Beroidea
593.9	**Echinodermata.** Sea-lilies & -urchins. Starfish, etc.
.91	Pelmatozoa. Crinoidea. Sea-lilies, feather-stars
.92	Eleutherozoa or Asterozoa (in general)
.93	Asteroidea. Starfish
.94	Ophiuroidea. Brittle-stars
.95	Echinoidea. Sea-urchins, heart- & cake-urchins
.96	Holothuroidea. Sea-cucumbers
593.99	**Hemichordata or Enteropneusta** incl. Balanoglossida & Pterobranchia → 596 ; 597.1
594	**Mollusca (and molluscoida)**
594.1/5	Mollusca proper. Shell-animals
594.1	**Lamellibranchiata or Pelecypoda.** Mussels, clams
.11	Anisomyaria. Oysters. Mussels
x12	Monomyaria .121 Ostreidae, oysters .124 Mytilidae, mussels
.13	Homomyaria

	594.14/.17	Heterodonta
	.141	Naiadidae. River & pond mussels
	.151	Cardiidae. Cockles
	.18	Desmodonta. Shipworms, etc.
	594.2	Scaphopoda (Solenoconchae). Tusk-shells
	594.3	Gastropoda (and Amphineura). Snails, slugs, etc.
	.31	Amphineura. Chitons, Coat-of-mail shells .311 Polyplacophora .312 Aplacophora
	.32/.38	Gastropoda (class)
	.32	Streptoneura (Prosobranchia). Periwinkles, cowries, limpets, etc.
+		.324 Aspidobranchiata .329 Pectinibranchiata
	.34/.38	Euthyneura
	.34	Heteropoda
	.35	Opisthobranchia. Sea-hares. Sea-slugs
	.36	Nudibranchiata
	.37	Tectibranchiata
	.38	Pulmonata. True (land) snails, land slugs, freshwater snails, etc.
	594.5	Cephalopoda (Siphonopoda)
	.51	Tetrabranchiata (in general)
	.52	Nautiloidea. Nautilus (Pearly nautilus)
	.53	Ammonoidea. Ammonites (extinct)
	.55	Dibranchiata (in general)
	.56	Octopoda. Octopus, argonaut
	.58	Decapoda. Squids & cuttle-fish
	.581	Belemnoidea. Belemnites (extinct)
	.582	Sepioidea. Squids. Cuttle-fish
	594.6	Molluscoida (in general, now obsolete grouping). Tentaculata, incl. 594.7/.9. Cf. 595.145; 596/597.1
	594.7	Polyzoa or Bryozoa. Moss-animals, sea-mats
+	.71/.72	Ectoprocta. Gymnolaemata; Phylactolaemata
+	.74	Endoprocta
	594.8	Brachiopoda. Lamp-shells
+	.81	Ecardines. Inarticulata
+	.82/.85	Testicardines. Articulata
	594.9	Urochordata or Tunicata. Sea-squirts, etc. → 596 ; 597.1
+	.93/.94	Ascidiae. Monascidiae; Synascidiae
+	.95/.97	Thaliacea. Pyrosomatida; Salpida; Doliolida

595 Articulata.

595.1 Helminthes. Vermes or Worms generally
Helminthology (in general)

.11 Scolecida. Lower worms (in general)

595.12 Platyhelminthes. Flatworms
.121 Cestoda. Tapeworms
.122 Trematoda. Flukes
.123 Turbellaria. Planarians
.124 Nemertinea. Nemertea. Ribbon-worms
Dimyaria. Trimyaria
595.13 Nemathelminthes
.131 Nematomorpha. Horse-hair worms
.132 Nematoda. Round-worms. Thread-worms. Eel-worms.
ex Vinegar eels. Maw-worms, etc.
+ .5 Filarioidea. Filariidae.
+ .6 Trichinelloidea. Trichotrachelidae
+ .7 Strongyloidea. Strongylidae. Hook-worm
+ .8 Ascaroidea. Ascaridae. Maw-worm
.133 Acanthocephala. Echinorhynchidae. Thorny-headed worms
.135 Chaetognatha. Sagittidae. Arrow-worms

595.14 Annelida (Annulata). Ringed or segmented worms & leeches
.141 Archiannelida
.142 Chaetopoda. Bristle-worms. Earthworms
.2 Polychaeta. ~~.3 Oligochaeta~~ Bristle-worms, lugworms
+ .3 Oligochaeta. Earthworms
.143 Hirudinea. Leeches
+ .144/145 Gephyrea (Echiuroidea & Sipunculoidea)
.144 Echiuroidea. ~~Sipunculoidea~~
.145 Sipunculoidea & Priapuloidea. Cf. 594.6/9
+ .1 Sipunculoidea, Sipunculidae
.2 Priapuloidea. Priapulidae

595.18 Trochelminthes. Rotifera. Wheel animalcules
.181/185 Rotifera
+ .188 Gastrotricha

595.2 Arthropoda (in general)
(incl. 595.3/.7)

595.3 Crustacea (Branchiata)
.31 Entomostraca (in general)
.315 Pycnogonida or Pantopoda. Sea-spiders
.32 Phyllopoda or Branchiopoda. Daphnids & water-fleas
.323 Euphyllopoda. Fairy, clam & tadpole shrimps
.324 Cladocera. Water-fleas
.33 Ostracoda
.34 Copepoda. Eucopepoda; Branchiura. Fish-lice
.35 Cirripedia. Barnacles, sea-acorns

595.36	Malacostraca (in general)
.37	Arthrostraca. Peracarida. Segmented-shell crustacea
.371	Amphipoda. Freshwater shrimps. Sandhoppers, etc.
.372	Anisopoda. Tanaidacea
.373	Isopoda. Woodlice, water-slaters, pill-bugs, etc.
.376	Syncarida
.38	Thoracostraca.
.382	Hoplocarida. Stomatopoda. Mantis shrimps
.383/384	Eucarida
.383	Schizopoda. Euphausiacea. 'Kril'
.384	Decapoda. Crabs, lobsters, crayfish, shrimps
.1	Macrura. Shrimps & prawns. Lobsters. Crayfish
.2	Brachyura. Crabs (in general)
.4	Oxystomata. Round crabs
.5	Oxyrhyncha. Triangular crabs
.6	Cyclometopa. Arched crabs. Common crab
.7	Catometopa. Square crabs
.8	Anomura. Hermit-crabs
.386	Phyllocarida. Leptostraca
.39	Paleostraca
.392	Xiphosura. King-crabs (Arachnida → 595.4)
.393	Trilobita. Trilobites (extinct)
595.4/7	Tracheata
595.4	Arachnida (Arachnoidea). Mites, spiders, scorpions
.41	Linguatulidae. Tardigrada. Bear-animalcules
.42	Acarina. Mites. Ticks. Itch-mites, etc.
+ .421	Ixodidae. Ticks
+ .422/.429	Mites, e.g. .426 Water-mites (Hydrachnidae) .427 Cheese-mites, meal-mites (Tyroglyphidae) .428 Itch-mites (Sarcoptidae)
.43	Opiliones. Opilionidae. Harvest-men
.44	Araneida. Spiders
+ .441	Liphistiomorpha. Mesothelae
+ .442	Mygalomorpha. Avicularidae. Atypidae
+ .443	Arachnomorpha (in general), incl Garden-spiders
.444.2	Agelenidae. Water-spiders
+ .3	Lycosidae. Tarantula spiders
.45	Pedipalpi. Whip scorpions
.46	Scorpionidae. Scorpions (True scorpions)
.47	Chelonethi or Pseudoscorpionidea. False scorpions
.48	Solifugae. False spiders. Sun spiders
.49	Ricinulei
595.5	Onychophora or Protracheata. Peripatidae
595.6	Myriapoda. Millipedes & centipedes
+ .61	Chilognatha. Diplopoda. Millipedes
+ .62	Chilopoda. Centipedes
+ .63	Symphyla. Scolopendras
+ .64	Pauropoda

	595.7	Insecta (Hexapoda). Entomology
	595.70	Entomology (in general)
	595.71	Apterygota (Ametabola). Synaptera. Primitively wingless insects. Cf. 595.751 ; 595.775
+	.711	Protura
+	.713	Collembola. Spring-tails
+	.715	Thysanura. Bristle-tails. Silver-fish
	595.72/79	Pterygota. Exopterygota & Endopterygota
	.72	Orthoptera (and Dermaptera)
	.721	Dermaptera. Earwigs
	.722/729	Orthoptera
	.722	Blattodea. Blattidae. Cockroaches
	.724	Phasmodea. Phasmatidae. Stick-insects
	.725	Mantodea. Mantidae. Mantises, praying mantis
	.727	Acridiidae. Migratory locusts
	.728	Locustidae. Locusts
	.729	Gryllidae. Grasshoppers. Crickets. Katydids
	.73	Archiptera
	.731	Thysanoptera (Physopoda). Thrips. Fringe-wings
	.732	Corrodentia. Termites. Bark- and book-lice
+	.1	Isoptera. Termites, or White ants
+	.2	Psocoptera (Psocoidea). Booklice. Bark-lice
+	.3	Embioptera (Embidaria)
	.733	Odonata. Dragon-flies, damsel-flies
	.734	Ephemeroptera (Ephemeroidea). May-flies
	.735	Plecoptera. Stone-flies
	.74	Neuroptera (and related orders)
+	.742	Megaloptera. Ant-lions. Alder-flies. Snake-flies
+	.744	Mecoptera. Panorpidae. Scorpion-flies
+	.745	Trichoptera. Caddis-flies
+	.746	Strepsiptera
	.75	Hemiptera. Rhyncota. Lice and bugs
	.751	Aptera (wingless). Lice, louse
+	.2	Anoplura. True lice. Sucking lice. Human lice
+	.4	Mallophaga. Bird-lice. Biting-lice
	.752	Phytophthires. Aphidae. Coccidae. Aphids, greenfly. Scale insects. Lac & Cochineal insects. Leaf-hoppers
	.753	Homoptera. Auchenorhynca. Cicadas. Frog-hoppers
	.754	Heteroptera. Bugs, true bugs, bed-bugs, etc.
	.76	Coleoptera. Beetles
	.762	Adephaga. Carabidae, ground-beetles. Dytiscidae, water-beetles. Gyrinidae, whirligigs.
	.763/768	Polyphaga
	.763	Palpicornia. Staphylinoidea. Hydrophilidae, etc. Burying beetles. Leaf-beetles. Larder-beetles. Dung beetles. June beetles. Ladybirds, etc.
	.764	Lamellicornia. Scarabaeidae. Cockchafers. Stag-beetles
	.765	Sternoxia. Elateridae. Wireworms, click-beetles
	.766	Malacodermata. Fossipedes. Teredilia. ~~Teredos~~Glow-worms. Fire-flies. Shipworms. Death-watch beetles

595.767	Heteromera. Blister-beetles, Spanish fly. Meal-worms, etc.
.768	Phytophaga. Rhynchophora. Curculionidae. Capricorn- and Colorado-beetles. Blossom-beetles. Weevils, etc.
.77	Diptera (and Aphaniptera). Flies & fleas
.771	Nematocera. Orthorrhapha. Midges. Gnats. Mosquitoes. Crane-flies (Daddy-longlegs)
.772	Brachycera. Flies (in general). Gad-flies. Horse-flies
.773	Cyclorrhapha
.1	Aschiza. Hover-flies
.4	Schizophora. House-flies. Bluebottles, blow-flies
.774	Pupipara. Louse-flies
.775	Aphaniptera. Siphonaptera. Fleas, chigoes or jiggers,etc.
.78	Lepidoptera. Moths. Butterflies
.782	Microlepidoptera. Clothes-moths, leaf-roller moths
.783	Macrolepidoptera (in general)
.785	Geometridae. Looper-moths
.786	Noctuidae. Night-flying moths
.787	Bombycidae. Bombycids. Silkworm-moths → 638.2, esp. 638.22
.788	Sphingidae. Hawk-moths, death's-head moth
.789	Rhopalocera. Butterflies (diurnal). Blues. Admirals. Peacocks. Tortoise-shells. Swallow-tails. Whites. Brimstones, etc.
.79	Hymenoptera. Ants. Wasps. Bees
.792	Entomophaga. Ichneumons. Gall-wasps or -flies
.793	Symphyta. Plant-,leaf-, wood-wasps. Saw-flies
.794	Aculeata (stingers, in general)
.795	Chrysididae. Gold-wasps
.796	Formicidae. Ants. Cf. 595.732
.797	Sphecidae. Digger-wasps
.798	Vespidae. Wasps, true wasps. Hornets
.799	Apidae. Bees: wild-, honey-, humble- or bumble-bees → 638.1, esp. 638.12
596	CHORDATA, VERTEBRATA (IN GENERAL) → 595.99 Hemichordata 594.9 Urochordata
597	ANAMNIOTA. AGNATHA, PISCES (FISH) & AMPHIBIA → 639.2 Fisheries
597.08	Ichthyology
597.1	Acrania. Cephalochordata (Leptocardia) Amphioxus (lancelet) → 595.99 Hemichordata; 594.9 Urochordata
597.2	Agnatha. Cyclostomata (Marsipobranchii) Lampreys & Hagfish
.21	Hyperoartia. Petromyzontia. Lampreys
.22	Hyperotreta. Myxinoidea. Hagfish

597.3/5	Pisces (Fishes) : sub-classes & orders
597.3	Chondrichthyes. Elasmobranchii (Plagiostomata)
.31	Selachii (in general). Euselachii
.32/34	Pleurotremata
.32	Diplospondyli
.33	Asterospondyli. Dogfish. True sharks
.34	Cyclospondyli
.35	Hypotremata. Tectospondyli. Angel-fish. Saw-fish. Rays. Skates. Torpedoes
.38	Holocephali. Chimaeridae. Chimaeras, rabbit-fish
597.4/.5	Osteichthyes. Actinopterygii
597.4	Ganoidea (Palaeopterygii and some Neopterygii)
.41	Cycloganoidea. Amioidei. Protospondyli. Bow-fins
.44	Chondrostei. Sturgeons & spoonbills
+ .442	Acipenseridae. Sturgeons
+ .443	Polyodontidae. Spoonbills
.46/.48	Choanichthyes
.46	Crossopterygii (in general). Polypteridae. Lobe-finned fishes, e.g. Latimeria
.47	Rhomboganoidea. Heterocerci. Ginglymodi. Lepidosteidae. Gars: gar-fish, gar-pikes
.48	Dipnoi, or Dipneusti. Lung-fish. Mud-fish
597.5	Teleostei (most Neopterygii)
.53	Lophobranchiates. Catosteomi. Mesichthyes. Stickleback. Pipe-fish. Sea-horse
.54	Plectognathi. File- and globe-fish
.55	Physostomi
.553	Malacopterygii
.1	Clupeidae. Herring, sprats, anchovies, sardines
.2	Salmonidae. Salmon. Smelt. Char. Trout
.554	Ostariophysi
.1	Characinidae. Piranha
.2	Gymnotidae. Electric eels
x8 .3	Cyprinidae. Carp. Tench. Barbel. Gudgeon. Roach. Bream. Loach. Minnows, etc.
.4	Siluridae. Cat-fish, electric catfish, thunderfish
.555	Apodes. Anguillidae. Eels. Sea-eels
.556	Haplomi. Pike
.56	Anacanthini. Cod. Haddock. Hake. Ling
.58	Acanthopterygii
.582.6	Mullidae. Mullet
.583.1	Percidae. Perch. Bass. Pike-perch, etc.
.584.2	Labridae
.585.1	Gobiidae. Gobies
.587.2	Scombridae. Mackerel. Tunny, etc.
.5	Xiphiidae. Sword-fish
.7	Zeidae. Dories, John Dory
.9	Pleuronectidae. Flat-fishes. Halibut. Turbot. Flounder. Plaice. Sole

	597.591	Symbranchii
	.592	Nothacanthiformes
	.593	Percesoces, incl. sand-eels
	.594	Opisthomi
	597.6	Amphibia (Batrachia) in general
	597.7	Gymnophiona. Apoda. Caeciliidae. Limbless burrowers
	597.8	Anura (Salientia). Frogs & toads
	.81	Aglossa, e.g. Surinam & Xenopus toads (clawed)
	.82	Phaneroglossa. Toads. Frog-toads. Tree-frogs
+	.825	Bufonidae. True toads. Common toad
+	.828	Ranidae. Frogs
	597.9	Urodela (Caudata). Newts & salamanders, axolotls Sirenidae. Proteidae. Amphiumidae. Salamandridae
+	.93	Amphiumidae. Giant salamanders
+	.94	Salamandridae. Newts (efts), axolotl, etc.
	598/599	AMNIOTA. Cf. 597
	598	SAUROPSIDA. REPTILIES & BIRDS
	598.1	Reptilia, incl. Squamata(Lizards, snakes), etc.
	598.111	Rhynchocephalia. Sphenodontidae. Tuataras
	598.112	Lacertilia (Sauria). Lizards. Geckos. Iguanas. Skinks. Slow-worms. Monitors
	.114	Rhiptoglossa. Chameleons
	598.12	Ophidia. Snakes
	.121	Non-poisoncous snakes (in general)
	.122	Operodontia
	.123	Boaeformia. Giant constrictors. Boas. Pythons
	.124	Common ringed-snake. Grass-snake
	.126	Poisoncous snakes. Colubridae. Viperidae. Cobras. Adders or vipers. Rattle-snakes, etc.
+	.2	Colubridae proteroglyphae. Cobras. Mamba, etc.
+	.3	Viperidae. Adders or vipers. Rattle-snakes
	598.13	Chelonia. Testudinata. Tortoises & turtles
	.132	Cryptodira. Tortoises. Chelydridae. Testudinae
	.133	Cheloniidea. Turtles. Cheloniidae. Dermochelyidae
	.134	Pleurodira. Amphibian(tortoises). Pelomedusidae. Chelyidae
	.135	Trionychia. River turtles. Carettochelyidae. Trionychidae
	598.14	Crocodilia or ~~Emydosauria~~. Crocodiles. Alligators. Gavials
	.15	Ichthyosauria (extinct). Fish-like reptiles
	.16	Sauropterygia (extinct). Plesiosauria (extinct)
	.17	Theromorpha
	.18	Pterosauria, Pterodactyla. Flying reptiles (extinct)
	.19	Dinosauria (extinct)

598.2	Aves. Birds (in general). Ornithology incl. 598.3/.9 → 636.5/6 (Domestic birds)
:061.62	Ornithological research centres & stations
:502.74	Bird sanctuaries & reserves. Bird-watching
598.20	Ornithology (in general)
598.3	Grallatores. Gruiformes, etc. Waders
.31	Calamicolae. Rallidae. Aramidae. Jacanidae,etc. Rails. Water-hens. Moor-hens. Corncrakes. Coots
.32	Arvicolae. Otidae. Gruidae. Bustards. Cranes
.33	Limicolae: Plovers, snipe & woodcock, sandpipers
.331	Charadriidae. Plovers, lapwings, peewits
.332	Dromadidae
.333	Scolopacidae. Snipe. Woodcock. Curlews
.334	Thinocoridae. Sandpipers
.34	Ciconiiformes. Gressores. Ardeidae.Balaenicipedae,etc. Ibis. Storks. Herons & egrets. Spoonbills. Bitterns
598.4	Natatores. Anseriformes, etc. Swimmers & divers
.41	Lamellirostres
.411	Mergidae. Goosanders. Mergansers
.412	Anatidae. Ducks. Wild-duck. *Cf.* 636.597
.413	Anseridae. Geese. Wild-geese. *Cf.* 636.598
.414	Cygnidae. Swans. *Cf.* 636.68
.415	Palamedeidae
.416	Phoenicopteridae. Flamingos
.42	Longipennes. Long-winged sea- and ocean-birds
.421	Tubinares. Procellariidae. Hydrobatidae. Petrels. Albatross. Fulmars. Shearwaters. Storm-petrel,etc.
.422	Lari. Laridae. Sternidae, etc. Gulls. Terns
.43	Steganopodes. Gannets, solan goose, etc. Frigate-birds. Cormorants. Pelicans
.44	Podicipediformes. Pygopoda. Short-winged divers. Auks. Puffins. Grebes. Divers. *Cf.* 598.42
.45	Sphenisciformes. Impennes. Spheniscidae. Penguins. Flightless sea-birds or swimmers
598.5	Ratitae. Wingless or flightless (land) birds
.51	Struthiones. Struthionidae. Ostriches
.52	Rheae. Rheidae. Rheas
.53	Casuarii. Megistanes. Casuariidae. Dromaeidae. Cassowaries. Emus. Kiwis (apteryx). Moas(extinct)
598.6	Gallinacei. Rasores. Galliformes. Columbiformes. Game-birds. Domestic & farmyard fowls, etc. → 636.5 Poultry birds (breeding,etc.)
+ .61	Galli . Game- and poultry-birds
.611	Turnicidae. *Cf.* 598.3
.612	Pteroclidae
.613	Tinamidae
.617	Phasianidae. Pheasants. Partridge. Quail. Pea-, jungle- and domestic-fowl,[illegible] Turkeys,etc.
.619	Tetraonidae. Grouse. Heath-cock, etc.

	598.65	Columbae or Columbiformes. Doves. Pigeons
	.652	Didunculidae
	.653	Geotrygonidae
	.654	Columbidae. Wood-pigeon. Ringdove. Turtle-dove
	.655	Carpofragidae. Fruit-pigeon
	598.7	Fibulatores. Psittaciformes. Scansores
	.71	Psittaci. Parrots. Parakeets. Lories. Cockatoos. Macaws. Budgerigars, etc.
	.72/.74	Scansores. Climbers. *Cf.* 598.89
	.721	Rhampastidae. Toucans
	.726	Picidae. Woodpeckers. Wrynecks
+	.731	Trogonidae. Trogons
+	.741	Musophagidae. Plaintain-eaters
	.742	Cuculidae. Cuckoos
	598.8	Passeres. Passeriformes. Passerines& Perchers
	.81/.84	Oscines. Song-birds
+	.811	Menuridae. Lyre-birds
	.812	Hirundinidae. Swallows
	.813	Muscicapidae. Silky flycatchers. *Cf.* 598.863
	.815	Laniidae. Shrikes. Butcher-birds
	.816	Corvidae. Ravens. Crows. Rooks.Jackdaws. Magpies. Jays
	.817	Paradiseidae. Birds of paradise
	.819	Oriolidae. Orioles. Golden orioles
	.822	Sturnidae. Starlings
	.825	Ploceidae. Weaver-birds or -finches
	.826	Fringillidae. Finches. Buntings. Crossbills
	.1	Fringillinae. ~~Hawfinches. Grosbeaks.~~ Sparrows.Chaffinches. Bramlings
	.2	Coccothraustinae. ~~Cardinals (American finches)~~ Hawfinches. Grosbeaks
	.4	Emberizinae. Buntings. Ortolan. Yellow-hammer
	.5	Pyrrhulinae. Bullfinches. Crossbills. Greenfinch. Goldfinch. Canary. Linnet. Siskin. Twite
+	.827	Tanagridae. Tanagers (Thraupidae)
	.829	Motacillidae. Wagtails. Pipits. Titlark
	.831	Alaudidae. Larks
	.839	Certhiidae. Creepers. Sittidae. Nuthatches
	.841	Paridae. Titmice. Tits. Great-, Coal-, Blue-, Marsh-tit
	.842	Sylvidae. Warblers. Wrens. Thrushes, etc.
+	.3	Sylviinae. Warblers. Hedge-sparrows. Reed-warblers. Blackcaps. Whitethroat, etc.
+	.4	Troglodytinae. Wrens
+	.5	Miminae. Mocking-birds. Thrashers
+	.7	Turdidae. Thrushes. Blackbirds
+	.8	Saxicolineae. Chats. Stonechat. Wheatear
+	.9	Erithacinae. Robin (Redbreast). Nightingale
	.86	Clamatores. Screechers. Shriekers
+	.862	Cotingidae
+	.863	Tyrranidae. Flycatchers. *Cf.* 598.813
+	.865	Dendrocolaptidae
+	.866	Formicariidae
	.88	Strisores. Caprimulgiformes. Apodiformes
+	.881	Caprimulgidae. Goatsuckers. Nightjars
+	.882	Macropterygidae. Swifts
+	.883	Trochilidae. Hummingbirds

598.89	Insessores. Perchers. Coraciiformes. ~~Cf. 598.7~~ Bee-eaters. Motmots. Todies, etc. Cf.598.7
+ .891	Bucotidae. Hornbills
+ .892	Alcedinidae. Halcyoninae. Kingfishers
+ .894	Upupidae. Hoopoes
+ .895	Coraciidae. Podarginae
598.9	Raptatores. Birds of prey. Falconiformes & Strigiformes
.91	Accipitres (diurnal)
.911	~~Carthitidae.~~ Cathartidae. New-world vultures. Condors
.912	Vulturidae. Old-World vultures. Carrion-vultures
+ .913	Serpentariidae. Secretary-birds
.914	Falconidae. Falcons. Peregrine falcon. Kestrel. Merlin → 639.1.081.3
.915	Accipitridae. Hawks. Eagles. Harriers. Buzzards. Kites. Ospreys
.97	Striges. Nocturnal birds of prey. Strigidae. Owls. Barn-owls. Screech-owls, ~~etc.~~ Hawk-owls. Long- and short-eared owls
599	MAMMALIA. MAMMALS. THEROPSIDA
599.1	Eplacentalia (Prototheria)
599.2	Marsupiala (Metatheria, Didelphia)
.22	Diprodontia. Wombats. Koalas. Kangaroos
+ .221	Caenolestidae
+ .222	Phascolomyidae. Wombats
+ .223	Phalangeridae. Koalas (koala-bear)
+ .224	Macropodidae. Kangaroos. Wallabies
.23	Polyprodontia.
+ .234	Peramelidae. Bandicoots
+ .235	Notoryctidae
~~+ .236~~	~~Phalangeridae~~
+ .237	Dasyuridae
+ .238	Didelphyidae. Opossums
599.3	Placentalia (Eutheria) in general incl. 599.31/.9
.31	Edentata
.311	Nomarthra. Scaly Ant-eaters
.312	Xenarthra. Sloths. Ant-eaters. Armadilloes
.32	Rodentia. Rodents, incl. hares & rabbits
.321	Simplicidentata. Rodents proper (in general)
.322	Sciuromorpha. Sciuridae. Castoridae. Geomyidae. Squirrels. Marmots (praire-dogs). Beavers, etc.
.323	Myomorpha.
.2	Myoxidae. Dormice (dormouse)
.3	Dipodidae. Jerboas (desert rats)
.4	Muridae. Mice (mouse). Rats. Hamsters. Field-mouse. Water-rats. Voles. Musk-rats. Lemmings. House-mice. Sewer-rats, etc.
.324	Hystricomorpha. Porcupines. Chinchillas. Guinea-pigs
.325	Duplicidentata. Leporidae. Hares. Rabbits.

599.33	**Insectivora (in general)**
.35	Zalambdodonta
.36	Dilambdodonta. Moles. Shrews. Hedgehogs
.362	Talpidae. Moles
.363	Soricidae. Shrews
.365	Erinaceidae. Hedgehogs
.38	Menotyphla. Tupajidae. Macroscelididae
.39	Dermoptera Galeopithecidae. Cobegos, or Kaguans
599.4	**Chiroptera**. Bats
.41	Megachiroptera. Flying-foxes
.42	Microchiroptera. Bats. Common bats
599.5	**Cetacea (and Sirenia)**
.51	Mystacoceti. Rorquals. Right-whales
.511	Balaeonopteridae. Finned-whales. Rorquals
.512	~~Smooth~~ Balaenidae. Smooth-whales. Greenland whales
.53	Odontoceti. Narwhals. Dolphins. Porpoises
+ .532	Physeteridae. Sperm-whales
+ .535	Ziphiidae. Narwhals
+ .537	Delphinidae. Dolphins. Porpoises
.55	Sirenia. Manatees (Sea-cows). Dugongs
599.6	**Ungulata (in general)**
.61	Proboscidea. Elephantidae. Elephants
.62	Hyracoidea. Procaviidae. Rock-badgers. Dassies
.72	Perissodactyla (odd-toed ungulates)
.721	Tapiridae. Tapirs
.722	Rhinocerotidae. Rhinoceridae. Rhinoceros
.723	Equidae. Horses. Asses (donkeys). Zebra. Quagga → 636.1/.19
.73	Artiodactyla (even-toed ungulates)
.731	Non-ruminantia. Non-ruminants
.1	Suidae. Swine. Pigs. Hogs. Boars. Wild boar → 636.4
.4	Hippopotamidae. Hippopotamus
.735	Ruminantia. Ruminants (cud-chewers) → 636.2/.3
.1	Camelidae. Camels. Dromedaries. Llamas. Vicunas
.2	Tragulidae.
.3	Cervicornia. Cervidae. Deer. Stags. Red deer. Fallow deer. Wapiti. Elks. Reindeer. Moose
.4	Pellicornia. Giraffidae. Okapis
.5	Cavicornia. Bovidae. Antelopes. Gazelle. Gnu. Chamois. Ibex. Oxen. Musk-ox. Buffaloes. Yaks. Bison, etc.
~~.74~~	~~Carnivora~~
~~.742~~	~~Fissipedia. Land-carnivora~~

599.74 **Carnivora**. Flesh-eating animals

.742 Fissipedia. Land carnivora

.1 Canidae. Dogs. Wolves. Jackals. Foxes

.2 Ursidae. Bears. Polar-bears. Brown-bears

.3 Procyonidae. Raccoons

.4 Mustelidae. Badgers. Skunks. Sable. Mink. Polecat, fitchet, ferret. Weasel. Ermine. Otters. Martens. Pine-marten

.5 Viverridae. Civet-cats. Genets. Mongoose

.6 Hyaenidae. Hyaenas

.7 Felidae. Cats. Lions. Tigers. Puma. Jaguar. Leopards. Panthers. Wild-cats. Lynxes

.745 Pinnipedia. Aquatic & marine carnivora

.1 Otaridae. Sea lions

.2 Trichechidae. Walruses

.3 Phocidae. Seals

~~.75~~ ~~Household animals, domesticated animals (zoology)~~
~~See 636 Animal husbandry~~

599.8 **Primates**. Quadrumanes

.81 Prosimiae. Tarsiers & lemurs

.811 Tarsiidae. Tarsiers

.812 Lemuridae. Lemurs

.82 Simiae. Anthropoidea (Pithecoidea). Monkeys

.821 Hapalidae

.822 Cebidae

.824 Cercopithecidae. Mandrils. Rhesus & Long-tailed monkeys. Baboons

.825 Hylobatidae. Gibbons

~~.826~~

.88 Anthropomorphae. Anthropoid apes. Orang-utans. Chimpanzees. Gorillas

599.9 **Hominidae**. Homo sapiens, etc.
Class here ~~the pl~~ information on the place of man in the realm of nature, and general comparisons of men with animals.
Cf. 572 Anthropology
61 Human biology, anatomy, physiology and pathology.

7 THE ARTS AND RECREATION

ART. ARCHITECTURE. PHOTOGRAPHY. MUSIC. ENTERTAINMENT. SPORT

7... A/Z	Works of individual artists, e.g. 75 Rubens Paintings of Rubens
7.0	GENERALITIES These .0 subdivisions are applicable at 71/76 and 78/79, but cf. 77.0
7.01	Theory of art. Aesthetics, philosophy and taste
.011	Design and composition
.013	Harmony in general. Proportion. Form. Rhythm and line
.014	The orders developed specifically, e.g. 72.014 The orders of architecture
.017	Optical effects. Light and shade. Colour and texture. Perspective. Illusion, etc.
.2	Chiaroscuro. Light and shade
.4	Colour. Colour and texture. Colour harmony
.6	Surface effect: size and area, surface texture
.9	Perspective, effect, illusion and other optical effects
7.02	Art technique and craftsmanship
.021	Working methods. Processes
.2	Preliminary presentation. Sketches. Models → 7.026
.22	Two-dimensional drawing
.23	Three-dimensional modelling and design → 7.026.2
.4	Execution, craftsmanship: hand, machine → 338.4
.42	Craftsmanship, handicraft
.45	Machine manufacture → 621.7/.9; 66/68

7.022 Tools, (studio) equipment, clothes, etc. Ateliers

.7 Special clothing: overalls, gloves, etc.

.8 Accommodation. Workshops and studios

.023 Materials. Raw materials. Choice of material

.024 Accessories: titles, mountings and frames

.4 Titles, legends, inscriptions

.5 Mountings, base pedestals, frames

.025 Damage. Care, preservation, repair, etc.
→ 351.721; 351.83

.1 Damage. Destruction. Vandalism

.2 Deterioration. Dilapidation. Decay. Neglect. Disuse

.21 Remains. Ruins. Fragments

.23 Deformation. Distortion

.3 Care and upkeep. Preservation. Conservation

.4 Repair. Restoration. Renewal. Cleaning.
Protection by various technical measures

.5 Change of use. Conversion

.7 Loss or unauthorized removal, e.g. in transit or by theft
→ 343.7

.8 Change of location. Exchange. Transfer

.026 Reproduction. Copying. Making of facsimiles, casts, etc.
→ 347.78; 7.061

.2 Models of existing works
→ 7.021.23

7.03 History of art. Periods, phases, schools. Styles and influences

Regional specification by place auxiliaries (3/9)
and detailed chronology by time or date sign "..."

7.031 Prehistoric and primitive art (ancient and modern)

.1 Prehistoric art
→ 571/572; 930.26

.2 Primitive art generally

.3 Indigenous or aboriginal generally
Cf.7.031.5/.9

.4 Derivative (folk or peasant) art generally
Cf.7.031.5/.9

.5 Asian and Australasian primitive art
→ 7.032/.033

.6 African primitive (aboriginal and folk) art

.7 American primitive (aboriginal and folk) art.
Eskimo and Amerindian primitive art
Cf. 7.031.8

7.031.8	Pre-Columbian (Pre-Spanish) art of ancient Mexican, Central and South American civilizations
.82	Mexican and Central American classical art generally, including the archaic cultures
.83	Pre-Aztec cultures, includingthe classical epoch : Olmec, Zapotec, Toltec, ect.
.84	Aztec art
.85	Mayan art
.86	Ancient Peruvian: Inca, Tiahuanco, Nazco, etc.
.87	Ancient Columbian and South Venezuelan: Chibchas, etc.
.88	Other ancient South American cultures, e.g. Quimbaya Subdivide as (8) if needed
7.032	Ancient art and civilizations of the Old World. Antiquity → 7.031.5; 7.031.8
.1	Oriental, Asiatic art
.11	Chinese art, including Tibetan, Central Asian, Corean
.12	Japanese art
.14	Indian and South East Asian art
.2	Egyptian art
.3	Phoenician, Carthaginian, Cyprian, Hittite and Hebrew art
.5	West Asiatic, Mesopotamian (Babylonian, Assyrian, etc.) and Iranian (Persian) art
.6/.7	Classical antiquity → 7.033.1
.6	Grecian art: islands, colonies, cities in Asia Minor
.62	Aegean (Bronze Age). Minoan or Cretan. Helladic. Cycladic. Trojan
.63	Hellenic Greek
.64	Hellenistic
.7	Italic, Etruscan and Roman art
.76	Etruscan
.77	Ancient Roman (Latin)
7.033	Mediaeval art
.1	Early Christian art: Western Latin, Eastern Greek
.2	Byzantine art
.3	Islamic art

7.033.4	Romanesque art, e.g.
(42)	in Britain: Anglo-Saxon, Viking, Anglo-Norman
(43)	in Rhineland (Germany, France, Switzerland, etc.) Rhenish
(46)	in Spain: (and Italy, South France, etc.) Visigothic, Mozarabic
.5	Late mediaeval and gothic art, e.g.
(42)	in England: decorated, perpendicular Tudor Cf. 7.034(420)
(43)	in Germany: early, middle, late Sondergotik
(44)	in France: Lancet, Rayonnant, Flamboyant
7.034	Renaissance art (including Baroque, Rococo and colonial style) e.g.
(420)	English: late Tudor, Elizabethan, Stuart, Georgian, etc.
(45)	Italian Renaissance: quattro-, cinquecento, mannerist, etc.
(5/9)	Colonial styles
(68)	Renaissance style in South Africa. Dutch colonial
(7)	Renaissance styles in N. America. Colonial (French, Spanish), e.g.
(73)	in United States: English colonial
.7	Baroque generally Baroque as development of the Renaissance, use 7.034(4...)7
.8	Rococo, Rocaille, Zopfstil, Perruque, etc. Rococo as development of the Renaissance, use 7.034(4...)8
.035	Post-renaissance: revivals (classical, mediaeval, etc.), chiefly 19th century. Classicism and the Romantic Movement. Historicism. Eclectism
(41/42)	in Britain: Regency, Pre-raphaelite
(43)	in Germany (and Central Europe generally): Neu-Gotik, Biedermaier, etc.
(44)	in France: Louis XVI, Directoire, Empire
(73)	in the United States: First National or Federal, Second National, etc.
.9	Return to traditional (national, domestic) forms. Traditionalism with contemporary design. Art nouveau. Jugendstil
.036	Modern art movements (late 19th century onwards). Realism, impressionism and subsequent 20th century trends
.1	Realistic trends. Objective realism or naturalism
.2	Impressionist movements. Luminism. Pleinairism

7.036.3	Functionalism, fitness for purpose (architectural, sculptural)
.4	Post-impressionism (Neo-impressionism, Fauves, etc.)
.5	Expressive monumentalism (architectural, sculptural)
.7	Expressionist movement, abstract art (emphasis on form and structure)
.73	Abstractionism: cubism, simultaneism, futurism, dadaism, etc.
.75	Surrealism and other post-expressionist movements
7.04	Subjects for artistic representation. Iconography. Iconology → 246
.041	Human form. Life studies. Genre. Occupations, trades → 572; 743
.2	Human form (head, bustr, etc.)
.3	Life studies (the nude)
.5	Portraits. Self-portraits
.7	"Genre" scenes from court life, rustic life, etc.
.8	Occupations, trades or professions
.042	Animals (fauna), real or imaginary → 59; 636/639; 7.047
.043	Plants (flora). Trees, flowers, fruits → 58; 633/635; 7.047/.049
.044	Historical representations. Scenes of royalty, state and public ceremonies. Battles. Pageants, etc. → 394
.045	Allegories, symbols, emblems, monograms and similar devices
.046	Epic, mythological, religious representations → 29
.047	Nature representations. Views. Landscapes. Seascapes, etc. → 7.042/.043 Divide by (2...)
.048	Pattern and line ornament. Systems of ornamentation (coloured or not). Arabesques, grotesques, etc. → 74
.049	Other subjects represented. Ideas and emotions
.2	Satires, caricatures → 741.5
.6	Still life. Nature morte → 7.043

7.05 Applications of art in industry, the home and everyday life. Industrial and commercial design, etc.

→ 745/749

The subdivision .05 may be modified or adapted under different arts, e.g. 721.05 rooms according to specific purposes, but 7.05 may also be used as a convenient main number, to be subdivided by colon for specific applications of art and design

:62 Art in industry, engineering, etc.

:64 Art in the house and home

7.06 Ethical and sociological aspects of art

→ 174; 176

.061 Ethical aspects: forgery, counterfeiting, fakes, plagiarism
→ 343.533; 7.026

.067 Sociological aspects: social significance, etc.
.2 Esoteric versus popular art. Social significance
.22 Esoteric art, art for the few. Art for art's sake. "Ivory tower"

.26 Popular art. Art for the people, for the many
→ 7.031.4

.3 Public (controlled) art versus free creation. Commissioned art
→ 7.078

.4 Utility aspect: pure (academic) versus applied art
→ 745/749

.6 Debased, second-rate, vulgarised, trashy productions

7.07 Occupations connected with art: artists, critics, connoisseurs, dealers, patrons, etc.

→ 92

.071 Artists and their functions

.1 Creative artists, e.g. painters, composers, choreographers

.2 Executive, performing and interpreting artists, e.g. conductors, players, performers, actors, virtuosi (instrumentalists, singers)

.3 Copyists and restorers. Arrangers. Adapters. Transcribers

.4 Teachers, instructors, lecturers

.5 Training and education. Students, etc.
→ 373.67; 377.6; 378.6

7.072 Expertise and experts. Historians. Commentators, critics, judges

.073 Art appreciation: art lovers, connoisseurs, collectors, supporters

.074 Private patronage of art. Art patrons
→ 7.078

.075 Art dealers, publishers, impresarios and producers, commercial agents, promoters, managers, etc.

.078 Official patronage, sponsorship, encouragement (grants, etc.)
→ 351.84

7.08 Features and forms in art, entertainment and sport, e.g.

78.08 Musical compositions (forms, movements)

79.08 Entertainments and sports according to participation (teams, etc.)

7.09 Performance and presentation

.091 Performance, presentation (in original medium). Shows, festivals, etc.

.1 Auditions. Hearing, testing of candidates, applicants

.2 Rehearsal. Reading-, dress-, general rehearsal

.5 Introduction of new works. Premières. First performances

.6 Repertory performances. Repeat performances. Re-issues (of films)

.092 Competitions. Contests. Matches. Championships. Records, etc.

.094 Screen presentation: filmed ballet, opera, circuses, etc.
→ 791.4

.096 Sound radio presentation, e.g. of concerts, films, drama and opera

.097 Television presentation, e.g. of films, ballet and theatre

71 PHYSICAL, TOWN AND COUNTRY PLANNING.

LANDSCAPE, RURAL AND URBAN AMENITIES

711	PHYSICAL, REGIONAL, TOWN AND COUNTRY PLANNING. LAND AND PROPERTY DEVELOPMENT AND USE → 333; 347.23 Divide by (1/9), e.g. 711-1/-8 ≙ 711.1/.8, e.g. 711.453.4-167 Port extension schemes (-167 from 711.167)
(100)	World (space) planning
(4/9)	National planning. Regional, country, town, e.g. (492) in Netherlands (73) in U.S.A.
.01/.09	≙ 7.01/.09, e.g.
.01	Aesthetic aspects of planning
711.1	General principles and practice. Land development. Plans
.11	Preliminary phases. Role of planning surveys, etc. Official and unofficial bodies
:061.2	Role of unofficial bodies
:352	Role of local authorities
.112	Planning surveys (retrospective or factual)
.116	Interim development
.12	Types of development
.121	Unplanned: spontaneous, haphazard; restricted (but still unplanned)
.122	Planned (including plans)
.13	Population movement, distribution and densities → 312
.132	Cityward movement and growth of built-up areas
.134	Planned dispersal (relocation of population)
.135	Planned centralization
.136	Overall densities

711.14 Land and property use

.142 Land classification. Evaluation of soil quality, etc.
→ 624.1; 631.4

.143 Economic use of land

.144 Acquisition of land: financial aspects, compensation, betterment

Divide by :33... and :347.2

:336.211 Real estate or land property tax

.16 Planning programme and progress

.163 Replanning. Improvement schemes

.164 Clearance and demolition (e.g.711.585-164 Slum clearance)
→ 69.059.6

.165 Conversion of use, e.g. dwellings converted to offices

.167 Extension schemes

.168 Rebuilding, reconstruction, e.g. of war- or flood-damaged areas

711.2 **Regional planning**

:6 Industrial development planning, e.g.

:622 Mining development planning

(2) Topographical and physiographic aspects

(4/9) Regional planning in various countries
Cf. 711(4/9)

.025 Deterioration of an area. Restoration

:623.68 War-damaged area

.2[illegible] [illegible] scale

.21 Planning on a supranational scale

.22 Planning on a federal or union scale

.24 Planning on a national or state scale

.25 Planning on a provincial or county scale

.27 Planning on a district scale

.28 Townships or parishes
→ 711.4

711.3 **Country planning. Rural development (and amenities)**

Cf.711.2:6; 712

(2) Topographical and physiographic aspects, e.g.

(253) Wooded land, forest and bush

(254) Cultivated land

.01 Aesthetic aspect

.025 Rural amenities: damage, deterioration, upkeep, restoration
→ 719

711.4 Town planning. Urban development. Built-up areas. Conurbations, towns, villages, etc.

(4/9)	In various countries
-1	General development and planning schemes ≙ 711.1, e.g.
-121	Unplanned, sporadic development
-163	Town replanning and improvement
-164	Clearance and demolition
.01	Aesthetic aspect. Townscape
.025	Urban amenities, damage, deterioration, upkeep, restoration → 719; 72.025
.41	Forms of built-up areas and urban units
:628	Planning in respect of public health and sanitary requirements
.412	Radiating and concentric
.413	Gridiron plan
.416	Linear and ribbon development
.417	Garden cities. New, twin and satellite towns → 711.48; 711.582
.42	Types of towns and localities
(2)	Topographical and physiographical aspects
.423	Primitive type settlements → 571.8
.424	Towns, localities classified historically and architecturally → 711.52; 930.26
.6	Dead townships or cities of the past. Historic remains → 571.8
.7	Devastated areas. Desolate or deserted towns and localities Cf. 711.586
.426	Towns, settlements classified by building material used, e.g.
:694	Towns mainly of wooden buildings
.427	Imaginary towns and localities. Ideal cities → (309)Aux.I.e
.428	World (civic) centres. Cité mondiale

711.43	Towns, localities classified by size and status → 711.46/.48
.432	Main cities: capital, metropolis → 711.451
.433	Cities, largest towns → 711.46
.434	Larger, medium-sized towns, boroughs, municipalities
.435	Smaller towns, urban districts
.436	Civil parishes
.437	Villages
.438	Hamlets
711.45	Towns, localities by dominant function
.451	Administrative centres → 711.432
.452	Commercial towns. Distributing centres
.453	Traffic, transport and communication centres
.1	Railway centres
.4	Ports and harbour towns
.9	Airport centres
.454	Industrial towns and settlements. Producing centres, e.g.
:622	Mining towns, settlements
.455	Health, holiday and pleasure resorts. Spas → 379.83; 79
:615.8	Health cure resorts, spas
(2)	Topographical and physiographic aspect, e.g.
(26)	Seaside resorts
"32"	Seasonal aspect, e.g.
"322"	Summer resorts
"324"	Winter resorts
.8	Holiday camps (fully organised, self-contained localities)
.459.6	Fortified towns and localities. Defence bases → 623.1; 711.559
.46	Cathedral towns
.47	University towns. Centres of learning
.48	Dormitory or residential towns → 711.417; 711.582

711.5 **Units, areas, zones, districts, quarters (in towns)**

.51 Zoning generally. Legal and administrative aspects. Ordinances

.52 Concentration and differentiation. Types of areas, e.g.

:930.26 Areas of archaeological or historical interest
→ 711.424

.522 Civic areas, wards

.523 Central areas. Town centres, nuclei

.55 Functional units
→ 711.45; 711.8; 725

.551 Civic (administrative) units

.552 Commercial, shopping, business and office areas

.553 Transport and depot areas
→ 711.7

.1 Land transport (rail and road) areas

.2 Parking spaces
→ 725.381

.4 Port, harbour. Quay and dockside areas

.9 Airport area

.554 Industrial districts or quarters
→ 338.96; 725.4

Divide by :6...

.555 Health, e.g. hospital and asylum areas

.556 Prison area

.557 Accommodation and board: hotel and café areas
→ 711.58

.558 Pleasure, entertainment, amusement, sport and recreation areas, e.g. theatreland, sport-stadium areas
→ 712.25; 725.8

.559 Other areas, e.g. reserved for military or defence purposes
→ 711.459.6

.56 Religious precincts, e.g. cathedral and church precincts

.57 Intellectual and educational, e.g. library, museum, school and university areas
→ 347.61

.58 Residential area(s). Housing estates, etc.
→ 711.417; 711.48

.581 Neighbourhood units

.582 Residential units: housing estates, housing schemes
→ 711.417

.5 Garden (residential) suburbs

.7 Temporary settlements: camps, caravan and houseboat colonies

711.585 Undesirable, unhealthy areas. Slums (generally)

.586 Uninhabitable and condemned areas
Cf. 711.424.7

711.6 Arrangement of buildings in towns. Site planning. Grouping design
→ 72.011

.61 Squares and other open spaces
→ 712.25

.62 Arrangement of buildings in relation to each other

.621 Between party walls, terraces, terrace grouping

.622 Semi-detached grouping

.623 Detached grouping

.63 Apportionment. Blocks. Division of sites

.64 Alignment. Frontages. Backs. Spacing and density

.65 Height and general shape. Outlines. Skylines. Set-backs
→ 69.032

.68 Small and incidental structures. Street furniture
→ 625.74; 725.94

711.7 Traffic routes: layout, planning
→ 351.811; 625.7/.8; 656; 711.453; 711.553

.73 Highways (roads and streets).

.75 Railways

.76 Canals and waterways

.77 Air routes

711.8 Public utilities (distribution and supply lines)
Divide by :62 and :654

(24) Subsurface utilities

712	LANDSCAPE, NATURAL AND DESIGNED. PARKS AND GARDENS → 551.4; 58; 634/635
:796.5	Landscapes as rambling and touring areas
(2)	Physiographical basis of landscapes, e.g.
(253)	Wooded landscapes
(282)	River and canal landscapes
"32"	Seasonal aspects: summer. winter, etc.
.00	Landscape designing practice and procedure Cf. 712.3
.008	Business and professional organization
.01	Aesthetics of scenery: theory, taste, ideals, style and character, interpretation of landscape character
.03	Historic styles ≙ 7.03, e.g.
.034(4)	Formal Renaissance gardens of Europe
712.2	Landscape pattern generally → 551.4; 911.5
.025	Upkeep, care and restoration → 719
.23	National parks and reserves, including tree plantations → 502.7; 719
:639.1	Game reserves
(494)	Swiss National Park
.24	Agricultural land as part of the landscape pattern, e.g. hedged, terraced, strip cultivated
.25	Open spaces, unbuilt areas (in or near towns or villages). Commons. Parks. Gardens, squares and recreation grounds → 711.558; 711.61
:791	Pleasure parks and spaces
:796	Sports parks and spaces Cf. 712.257
(1-191)	Central parks and gardens
(1-192)	Green belts
.252	Commons and greens
.253	Parks, public gardens (with or without play and sport facilities) → 727.6
.254	Squares, open squares, garden squares
.256	Playgrounds → 371.61
.257	Playing fields. Sports grounds (Specific sports by :796...)

712.26 Private grounds, parks and (enclosed) gardens. Estates
≙ 712.25 and → 712.3

.27 Market and nursery gardens. Orchards. Fruit and vegetable gardens. Kitchen gardens

:631.53 Plant nurseries

:635 Kitchen gardens. Ornamental, flower gardens

.28 Allotments
→ 333.328

712.3 Landscape gardening (in general)

Garden planning, layout, design and execution
→ 635

(2) Preparation of ground for various landscape characteristics

.02 Design and construction, care and upkeep

.31 Ground surface modelling
Divide by :624.1

.35 Boundaries: ha-has, etc.
→ 69.022/.028; 712.413

.36 Roads, drives, rides, paths and walks. Approaches
→ 625.7/.8

712.4 Planting design: vegetation, plant forms, arrangement
→ 625.77

:718 Cemetery planting design

.41 Trees and shrubs. Scrub hedges
→ 63127

.413 Trees: arrangement, clumps, shelter belts, avenues

.414 Shrubs and shrubberies: hedges, topiary-work

.42 Herbaceous beds and borders. Flower beds. Carpet bedding. Ground cover. Turf and lawns. Rock gardens, etc.

:635.967.2 Rock gardens. Rockeries

.422 Herbaceous borders. Flowerbeds

.423 Turf and lawns

712.5 Water features: streams, lakes or ponds, fountains, etc.

:628.974.6 Illuminated water features and fountains

(282) Running water, streams, etc.

(285) Lakes or ponds

712.6 Structural features (in general)
Divide by :624 and :72

:624.136 Embankments, terraces, etc.

:726.8 Graves, tombstones, monuments

:728.991 Summerhouses, garden shelters or pavilions

712.7 Garden ornament: figures, sundials

- :681.111 Sundials
- :73.04 Figures. Sculptured ornament, figures, etc.
- :738.041 Ceramic (garden) dwarfs, etc.

718 CEMETERIES, CREMATORIA, ETC.: PLANNING, DESIGN, UPKEEP
→ 351.776; 614.6; 726.8

719 PRESERVATION OF RURAL AND URBAN AMENITIES.
NATIONAL TRUSTS AND SIMILAR MOVEMENTS
→ 7.025; 712.2.025; 72.025

- :06 National trusts
- :502.7 Nature and wild life protection

72 ARCHITECTURE

→ 624/628; 69

72.00	Architectural practice and procedure
.003	Commercial and financial aspects. Fees, etc.
.007	Architectural profession
.008	Business and professional organization. Registration, etc.
.009	Relations with authorities, builders, clients, etc.
72.01	Aesthetics and theory of architecture. Principles of design, proportion and optical effect. (Practical programming and design → 721.01)
.011	Design. Project. Plan. Composition. Dimensions (Practical design details of buildings at 721.01)
.1	Project, plan and accommodation, requirements, choice of site
.18	Manner of provision (affecting cost), special or mass-produced
.185	Mass produced
.2	Space division: layout, plans and sections, height, etc. → 72.05; 721.05
.22	Siting. Orientation. Prospect → 711.6
.24	Floor plans and sections
.25	Height. Storeyed buildings generally. Overhang and setback
.26	Number of floors Add 1 to 9, e.g.
.261	Single-storey buildings, bungalows ,etc.
.269	Nine-storey buildings
.27	Very high buildings (10- or more floors). Skyscrapers
.28	Towers (buildings) → 624.97
.3	Plan elements: Basic forms, e.g. circular, axis, plane, etc.
.4	Relationship of parts to whole: main parts,wings, annexes
.5	Relation of exterior to interior: openings, fenestration, etc.

72.011.6	Exteriors: forms, parts, elevations
.7	Semi-enclosed spaces: open-air parts → 728.98
.72	Open above, unroofed: courtyards, areas, lightwell
.75	Open at side: verandahs, loggias, patios, porticos
.8	Interiors: enclosed spaces (disposition, dimensions)
.9	Space for equipment, furniture and storage units → 721.05
.013	Proportions: principles of unity, order, [illegible] symmetry, variety and monotony. Harmonic systems (Dimensional and modular co-ordination at 721.013)
.014	The orders of architecture
.017	Optical effects: light and shade, colour and texture, perspective, illusions
.9	Perspective, effect, illusion, corrections, refinements
72.02	Technique. Materials available. Preservation, repair. Conversion ≙ 7.02, e.g.
.021	Working methods, drawings, models (preferably at 721.02)
.023	Materials available to the architect: suitability, use, choice, e.g.
:691.2	Architectural use of natural stone
.025	Amenities, damage, deterioration, preservation,protection,etc.
.4	Repair and restoration. Renewal. Cleaning. Protection
.026	Architectural replicas, miniatures, etc. Cf. 721.021
72.03	Architectural history, periods and phases, styles and influences ≙ 7.03, using (4/9) and "...", e.g.
.031	Prehistoric and primitive architecture. Ancient American architecture ≙ 7.031
.8	Pre-Columbian (Pre-Spanish) architecture of ancient Mexican, Central and South American civilisations
.032	Ancient architecture (of the Old World). Antiquity → 7.031.8
.1	Oriental (Asiatic), e.g. Chinese, Japanese, Indian
.2	Egyptian
.5	West Asiatic: Mesopotamian, Iranian (Persian), etc.
.6	Classical antiquity. Grecian, Greek, etc.
.7	Italic. Etruscan and Roman

72.033 Mediaeval (Christian, Islamic) architecture
≙ 7.033

.2 Byzantine

.3 Islamic

.4 Romanesque

.5 Late mediaeval in (Western) Europe. Gothic

.034 Renaissance architecture (including Baroque, Rococo and Colonial)
≙ 7.034

.7 Baroque (as a style separate from Renaissance)

.8 Rococo, Rocaille, Palladian revivals, etc.

.035 Post-renaissance architecture: revivals (classical, mediaeval, etc.), chiefly 19th century. Classicism and the Romantic movement. Historicism. Eclecticism
≙ 7.035

.036 Modern (20th century) architecture
≙ 7.036

72.05 Parts of buildings. Spaces and rooms planned for specific uses
(preferably at 721.05, q.v. for details)

721 BUILDINGS GENERALLY: PROGRAMMING. DESIGN.
PARTS FOR SPECIFIC USES, ROOMS, ETC.
(Special types of buildings → 725/728)
→ 711.6

.001 Preliminary investigations. Programming

721.01 General design, disposition, space division and dimensional co-ordination of buildings

.011 General design, disposition, space division and relationships
≙ 72.011, e.g.

.1 Project, plan and accommodation, requirements, choice of site

.18 Design according to manner of provision (affecting cost)

.185 Mass-produced building design

721.011.2 Space division: layout, plans, number of floors, etc.

.22 Siting and grouping of buildings

.24 Floor plans and sections

.26 Number of floors
(Add 1 to 9)

.4 Relationship of parts to the whole: main parts, wings

.013 Dimensional coordination. Modular coordination.
Standardization problems, use of prefabricated units

:69.057.1 Large, complex prefabricated units or whole buildings

:691.81 Simple prefabricated units of construction

.02 Working methods, drawings, models and accessories
→ 72.02

.021 Working methods: drawings, models

721.05 Parts of buildings, spaces and rooms planned for specific uses

→ 643/645; 72.011.7/.9 and 721.011

(The divisions .051/.059 are applied throughout 725/728 for consistent arrangement of spaces and rooms with analogous functions in specific types of buildings)

.051 General space and access. Approaches and parking space.
Enclosure and protection
→ 712.35/.36

.6 Approaches to buildings. Parking and garage space
→ 711.553.2; 725.381; 728.949

.8 Enclosure and special measures for security and protection
→ 631.27; 69.022.1; 699.8

.052 Entry/exit and circulation space: entrance halls, lobbies, foyers, anterooms, waiting rooms, cloak rooms, etc.
→ 721.058.6

.7 Horizontal circulation spaces. Corridors

.8 Vertical circulation spaces. Stairways, lift-wells

.053 Assembly space. Halls and auditoria (in buildings)
→ 725.8, esp.725.83, e.g.

725.13.053 Municipal assembly rooms (in town halls)
725.8.053 Auditorium and stage (in theatres)
727.1.053 School assembly halls

721.054 Business, administrative and instructional spaces, rooms, etc.
Service, office and store space
→ 65/651; 657; 725.2, e.g.

725.13.054 Civic council chambers
72711.054 School classrooms

.4 Public display and service space: showrooms, sales and counter areas

.5 Office space (in buildings)

.7 Store space. Stock rooms. Strong rooms

.055 Layout of spaces for specialised technical activity.
Rooms according to type of (fixed) equipment installed, e.g.

721.055:681.3 Computer rooms (in buildings generally)
725.51.055:616 Hospital treatment rooms, operating theatres,et

.056 Parts and spaces specific to particular kinds of buildings, for isolation, seclusion and privacy, e.g.

725.6.056 Prison cells and wards
726.056 Private prayer space (in churches, etc.)

.057 Kitchen, catering and associated domestic service space
→ 643.3/.4; 725.71, e.g.

725.4.057 Industrial kitchens and canteens
727.1.057 School kitchens, canteens and dining halls

.2 Kitchens and subsidiary rooms

.4 Counter or bar service areas, buffets

.5 Dining rooms, canteens, refectories

.058 Domestic, living and sleeping space
→ 643.5/.9, e.g.

725.5.058 Resident staff and nurses' quarters (in hospitals and homes)

727.1.058.5 School dormitories

.2 Reception rooms. Living rooms. Lounges

.5 Bedrooms. Dormitories. Dressing rooms

.6 Toilets (bathroom and W.C.)
→ 721.052

.059 Ancillary spaces, annexes for laundry, animals, etc.
→ 631.2; 727.6; 728.9

725 PUBLIC, CIVIL, COMMERCIAL AND INDUSTRIAL BUILDINGS.
SECULAR ARCHITECTURE GENERALLY
Use (4/9)Place, "..."Time and the.0 divisions of 72 and 721

725.1 Civic, legislative, public service and public utility buildings.
.05 Parts, spaces, rooms for specific uses
≙ 721.05

.11 Parliament buildings. Capitols, etc.

725.12	Central administration or government buildings. Buildings for foreign representatives
.121	Ministry and government office buildings
.125	Embassies
.13	Local administration or government buildings. Civic centres
.131	County, city and town halls (including so-called guildhalls)
.132	Municipal office buildings (purely administrative)
.136	Employment exchanges, labour exchanges
.14	Revenue (customs, excise) buildings. Mints
.141	Customs houses and offices. Customs posts
.144	Mints
.15	Law-court and tribunal buildings
.151	Courts of justice, law-courts in general
.155	Record offices, archive repositories
.16	Post, telegraph and telephone buildings
.161	Post offices (incl. sorting offices .055)
.165	Telephone exchanges
.166	Telephone (call) stations, posts, booths and call-boxes
.17	Royal, presidential, official residences. Palaces → 726.92; 728.8
.171	Royal and presidential palaces, including governor-generals' residences
.172	Official residences of ministers or state functionaries
.18	Military and police buildings
.181	Military buildings generally. Barracks, depots, etc. → 355.7
.182	Forts, fortresses → 623.1
.183	Citadels → 728.81
.188	Police stations
.19	Various civic and public service buildings
.191	Fire stations (incl. training towers and alarm installations) → 614.8
.192	Mortuaries, morgues → 726.8
.193	Waterworks and water supply buildings (architecture) → 628.1
.194	Public health and sanitary buildings. Public conveniences, washhouses → 628.2/.4

725.2 Commercial and business buildings. Shops. Offices, etc.

.05 Parts, spaces, rooms for specific uses
≙ 721.05, e.g.

.054 Business, boardroom, showroom, office store space

.21 Shops, stores and similar trade premises

.211 Retail shops generally: self-service, supermarket

.212 Showrooms, saloons, etc.
→ 725.91

.214 Department stores

.219 Small trade buildings: kiosks, stalls, advertisement pillars, etc.
Cf. 725.919

.22 Buildings partly for trade and partly residential. Shops with offices or flats above

.23 Office buildings generally. Office blocks

:368 Insurance buildings

.24 Banks. Savings banks, etc.

.054.7 Strong rooms, safes

.25 Stock exchanges, chambers of commerce, bourses, etc.

.26 Covered markets. Market halls. Shopping arcades
→ 711.552

.27 Open markets. Livestock markets, etc.

.274 Market crosses

.29 Other commercial buildings

725.3 Transport, traffic and storage buildings
→ 656

.05 Parts, spaces, rooms for specific uses
≙ 721.05, e.g.

.052 Entry/exit control, circulation, platforms, etc.

.054 Administration, office and storage space

.055 Special technical activity: goods and parcels handling

.31 Railway stations. Passenger stations
→ 656.21

.314 Urban, underground and metro stations

.32 Goods-yard buildings and depots. Goods stations

.33 Other railway buildings. Signal boxes, repair shops, sheds, etc.

725.34 Port, harbour and waterside buildings or structures
→ 627; 656.6; 725.75

.342 Wharf buildings , quay structures, piers, landing stages, etc.
→ 627.34

.344 Lighthouses (architectural aspects)

.346 Causeways, moles, breakwaters, sea walls, etc.

.347 Weir and lock buildings and structures

.35 Warehouses, depots

.355 Cold storage depots. Ice houses
→ 728.97

.36 Silos and grain elevators
→ 624.953; 631.24

.38 Road transport buildings and depots. Garages. Service stations
→ 625.48; 656.1

.381 Garages. Buildings or facilities for parking vehicles
→ 711.553.2; 721.051.6

.384 Filling stations

.386 Bus and tramway garages. Depots

.388 Coach or bus stations and air terminals
Cf. 725.398

.39 Airport buildings and structures
→ 629.7.08; 656.71

.391 Hangars and repair sheds
→ 624.9

.392 Landing-strip or runway structures and standings (for aircraft)

.394 Air traffic control structures (for radar and other signalling)

.398 Air passenger (and freight) buildings
Cf. 725.388

725.4 Industrial buildings. Factories, mills, works, yards, etc.

Divide by :6 (preferably under 725.41 and .42), e.g. : 663.4 Brewery buildings

.05 Parts and spaces according to specific uses
≙ 721.05, e.g.

.054 Administration: office space and layout

.055 Production. Shop floor space and layout
→ 658

.057 Canteens, kitchens, etc.
→ 725.71

725.41	Construction, services, installations and equipment generally Cf. 725.42
:621	Power supply installations (steam, water, etc.)
:621.311	Electricity supply to industrial buildings
:69.02	Structural parts: walls, roofs, etc.
: 693/694	Construction work: masonry, concrete,metal, timber
:696/698	Services, installations: water, drainage, ventilation, etc.
:699.8	Protection, safety, proofing and installation
.42	Special buildings according to nature of industry or product, e.g.
:621.039	Nuclear power plants
:621.311	Electricity generating station
:621.7/.9	Engineering workshops
:622.3	Mining and pithead buildings
:629.12	Shipyard, boatyard
:637	Dairy and meat produce buildings
:648	Laundry buildings
:655	Printing works
:66	Chemical industry works
:662.76	Gas producers
:663.4	Brewery buildings
:669	Metallurgical works, blast furnaces, etc.
:677	Textile and cordage mills
:687	Clothing and garment factories
725.5	Health and welfare buildings. Hospitals, clinics and special homes → 355.72; 361/362
.05	Parts, spaces, rooms, departments for specific uses ≙ 721.05, e.g.
.052	Entrance, reception, circulation; waiting and changing rooms
.054	Technical service, consultation, treatment rooms
.056	Nursing and isolation units. Wards and ancillary rooms
.058	Resident staff and nurses' quarters → 728.4

725.51	Hospitals. Health centres. Clinics and nursing homes Specify function by :61..., e.g.
:616.8	Neuropsychiatric hospitals, centres or clinics
.05	Departments, parts, spaces, rooms for specific purposes ≙ 721.05
.512	Health clinics, surgeries, dispensaries
.514	Convalescent homes
.515	Sanatoria, e.g.
:616-002.5	Tuberculosis (consumption) sanatoria
.53	Homes for the mentally deficient, handicapped or subnormal Cf. 725.51:616.8
.54	Homes for the physically handicapped and disabled, e.g. for the blind and deaf-mutes ≙ 362.4
.55	Homes for the indigent. Public assistance institutions, workhouses → 362.5; 728.55
.56	Homes for the aged. Almshouses. Pensioners' and special rest homes → 362.6; 728.1
.57	Child and infant welfare buildings → 362.7
.573	Day nurseries. Crèches. Kindergartens
.578	Children's, infant and foundling homes. Orphanages, etc.
.59	Veterinary hospitals, clinics and dispensaries. Animal homes
725.6	Prisons or penitentiaries. Reformatories → 343.8
-055.2	Women's prisons
.05	Parts, spaces, rooms for specific uses ≙ 721.05, e.g.
.051	General space: access, enclosure and security
.053	Assembly and exercise space, courtyards, etc.
.055	Specialized activity. Workrooms, etc.
.056	Isolation units. Cells, wards, etc.
.61	Closed prisons. Penitentiaries
.63	Open prisons. Correctional establishments (for adults)
.64	Reformatories (juvenile). Approved schools

725.7 **Public refreshment buildings. Baths. Spa and park buildings**
→ 728.5

.05 Parts, spaces, rooms for specific uses
≙ 721.05, e.g.

.052 Entrances. Cloakrooms. Changing and dressing rooms

.054 Service, counter or bar area

.055 Space for specialised activity, e.g.
pools of swimming baths

.057 Kitchens and dining rooms

.71 Restaurants and cafés, licensed premises, canteens
→ 721.057; 728.5

.716 Public houses, taverns and similar licensed premises

.718 Communal eating and dining-hall buildings.
Refectory and canteen buildings

.73 Public bath buildings (other than swimming baths, q.v.725.74).
Thermal, remedial baths (Turkish, Finnish, etc.). Saunas

.74 Swimming baths

.742 Covered-in baths

.743 Open-air baths

.75 Spa, health or holiday resort buildings

.751 Spa buildings. Casinos. Kursaals

.755 Seaside pier and promenade buildings
→ 725.34

.76 Park and garden buildings. Bandstands, pavilions, follies, etc.
→ 712.6; 725.8

725.8 **Public entertainment and recreation buildings.**
Halls. Theatres. Stadiums, etc.

.05 Parts, rooms, spaces for specific uses
≙ 721.05

.052 Entry/exit, circulation spaces. Box-office. Foyer,
promenade, cloakrooms, etc.

.053 Auditorium and stage

.2 Auditorium: seating accommodation, gangways, access

.3 Arena, e.g. of stadiums and theatres in the round

.6 Projection, screen, projection room (of cinemas)

.7 Stage and ancillary stores, stage equipment and props
→ 688.7; 792.02

.056 Private rooms, dressing rooms, etc.

725.81	Concert buildings and halls (acoustic emphasis)
.82	Theatres, cinemas and similar buildings
.053	Auditorium, stage, etc.
.821	Opera houses
.822	Theatres. Playhouses, e.g. :792.7 Variety theatres → 725.823
.5	Open-air theatres
.823	Cabarets, dance halls, music halls, etc. → 725.822; 792.7
.2	Café-concerts, café-chantants
.3	Cabarets
.6	Dance halls, palais-de-danse. Music halls. "Old time"music halls Cf.725.822:792.7
.824	Cinemas. Film and television theatres
.053	Auditorium. Projection screen, projection room
.826	Stadiums, amphitheatres, hippodromes and similar buildings,e.g.
	:791.8 Circus and bull-ring buildings
	:796 Sports stadiums (football, athletics, etc.) Cf. 725.85/.893
.053.2	Stadium, grandstand, etc. (seating and standing)
.3	Arena or ring space
.83	Assembly buildings. Public halls for meetings, etc. → 721.053
.832	Congress and conference buildings or halls
.835	Community centres. Village halls
.838	Youth club buildings → 362.8
.84	Buildings for indoor games and amusements (billiards,bowling,etc.)
.842	Billiards saloons, halls or rooms
.844	Skittle alleys. Bowling alleys or saloons
.848	Amusement arcades, pin-table saloons, etc.
.85	Buildings, halls for physical recreation and training
.852	Gymnasiums
.856	Covered courts (e.g. tennis, badminton and squash) → 712.257; 725.893
.86	Ice sport buildings. Rinks → 796.9 and Cf. 725.826
.87	Water sport buildings. Yachthouses,boathouses,etc. → 797
.88	Riding school buildings and structures → 798 and cf. 725.826

725.89 Ancillary buildings and structures for sport. Pavilions, shelters
→ 712.257; 725.826

.891 For shooting and archery: ranges, pavilions, butts

.892 For wheel and animal racing: race-track structures, e.g.

:796.6 Cycle-racing

:798.4 Horse-racing

:798.8 Dog-racing (greyhound, whippet)

.7 Training stables, kennels, etc.

.893 For outdoor (ball) games and athletics. Sports pavilions

:796.33 Football pavilions

:796.42 Athletics pavilions, cindertracks, etc.

725.9 Various public or civil buildings and structures

.91 Exhibitions buildings, pavilions or halls

.916 Temporary (exhibition) buildings
→ 69.033.6; 728.18

.917 Mobile exhibitions structures
Divide by :629(Vehicles)

.919 Stands, stalls and similar small exhibition structures
Cf. 725.219

« .92 (Temporary buildings) → 69.033.6; 725.916; 728.18 «

.94 Monuments and various freestanding structures
→ 726.8

.941 Triumphal arches and arcades

.942 Triumphal columns. Obelisks. Stelae

.944 Towers. Bell, clock or watch towers

.945 Memorials: commemorative statues, crosses, plaques, cenotaphs
→ 726.82

.948 Fountains, drinking fonts and troughs, pumps, etc.
→ 712.5

.949 Street furniture, lamps and other free-standing features

.95 Bridges and viaducts, flyovers, tunnels and other traffic structures
→ 624

:624.19 Tunnels

:624.2/.8 Bridges

725.96	City and town gateways. City walls. Moats, etc.
.961	Gateways: monumental and other city gates, barbicans
.963	City walls. Ramparts. Bastions
726	RELIGIOUS, ECCLESIASTICAL ARCHITECTURE. SACRED AND FUNERARY BUILDINGS Use the (4/9) and "..." auxiliaries, and the .0 division from 72 and 721,
:28/29	Religion or denomination
.01	Design, disposition, dimensional co-ordination
.03	Periods and styles ≙ 7.03 or 72.03
.05	Parts and spaces for specific uses, e.g.
.051	General space and access, approaches, closes
.052	Entrances, forecourts, porches, vestibules, etc.
.053	Main assembly space or place of worship Cf. 726.592
.056	Seclusion and private prayer space Cf. 726.595
726.1	Temples, sanctuaries and shrines (non-Christian) → 726.77
.011.32	Round temples
.12	Temples, shrines of ancient civilisations (other than oriental)
.13	Oriental temples. Pagodas and shrines (ancient or modern)
.17	Rock temples (rock-cut temples) Cf. 726.827
.2	Mosques Cf. 726.77:297
.011.28	Minarets
.053	Main assembly space
.8	Recesses, niches, kiblahs
.3	Synagogues. Jewish temples
.053	Main assembly space
.8	Recesses, canopied niches, tabernacles, etc.
« .4	(Chapels) → 726.52; 726.595 «

726.5	Christian church architecture → 246/247; 726.6
:284	Protestant churches
.52	Chapels
.54	Churches
.59	Details of Christian churches
.592	Nave: aisles, crossing, transepts, transept aisles and apses
.593	Chancel(east arm): choir, sanctuary, apses, ambulatory, etc.
.595	Side- chapels, saints' chapels
.596	Sacristies and vestries. Crypts. Baptisteries
.597	Cloisters and chapter-houses
.6	Cathedrals
726.7	Monastic buildings. Religious houses
.05	Parts, spaces, rooms for specific uses, e.g.
.056	Cells (for isolation, meditation, etc.)
.058	Living and sleeping quarters
.71	Monasteries, abbeys and convents
.76	Hermitages
.77	Non-Christian religious houses. Monasteries.Monastic temples
:294.321	Lamaseries
:297	Islamic monasteries. Ribats
726.8	Funerary architecture. Sepulchral monuments, memorials, etc. → 571.9; 718; 725.94
.81	Funerary, cemetery and mortuary chapels
.82	Sepulchral monuments, tombs, memorials, graves, etc.
.822	Mausoleums
.825	Memorial features: gravestones, crosses, slabs → 725.945
.827	Rock tombs Cf. 726.17
.829	Sarcophagi
.83	Crematoria
.84	Mass burial features: Grave mounds, caves, catacombs → 571.91
.85	Pyramids and similar monuments
.86	Cloistered cemeteries, e.g. Campo Santo (in Italy)

726.9	Other religious buildings
.91	Parsonages, presbyteries, rectories, vicarages → 728
.92	Episcopal palaces → 725.17
.93	Parish, church and mission halls → 725.83
.95	Pilgrimage shrines, calvaries and isolated crosses
727	BUILDINGS FOR EDUCATIONAL, SCIENTIFIC AND CULTURAL PURPOSES → 37, esp. 371.6; 711.57 Use (4/9) and "..." auxiliaries, and the .0 divisions from 72 and 721, e.g.
.01	General design, disposition, space division, relationship and dimensional co-ordination
.05	Parts of buildings, spaces and rooms for specific uses, e.g.
.053	Assembly space. Halls (of schools and colleges)
.054	Instruction and administrative space: lecture rooms, classrooms, etc.
.055	Rooms with special equipment and uses
.057	Kitchens and catering space: canteens, refectories
.058	Living and sleeping space: common rooms, restrooms, dormitories
727.1	School buildings. School architecture → 371.6; 373 et seq.
.11	Types of schools, especially day schools
.111	Nursery schools, infant schools
.112	Primary schools
.113	Secondary schools
.118	Open-air schools
.12	Boarding schools ≙ 727.11
.14	Special schools for the physically handicapped → 376.2/.3
.15	Special schools for the mentally handicapped or educationally subnormal → 376.4
≠ .2	(Boarding schools) → 727.12 ≠

727.3 **University and college buildings**

.4 Vocational and specialist training schools, colleges, etc.
→ 377

727.5 **Buildings of scientific and learned societies, technical institutions, etc.**

.55 Scientific and learned societies, technical institutions
.57 Research institutes. Laboratories and experimental stations

727.6 **Zoological and botanical garden buildings**
→ 712.253

.62 Zoological garden (zoo) buildings, animal houses
.64 Botanical garden buildings. Tropical plant houses, etc.

727.7 **Museums and art galleries. Museum architecture generally**
→ 069

727.8 **Library, archive, record and patent office buildings**
→ 02

.05 Parts, spaces. rooms for specific uses, e.g.
.052 Entrance and circulation, entry/exit control
.054 Administrative space: offices, general stores, etc.
.055 Service, shelving, filing and departmental space

727.9 **Observatories, broadcasting stations, studios, etc.**

.91 Observatories and field (recording) stations
→ 52; 55
.913 Planetariums
.94 Broadcasting stations and studios. Recording studio buildings
.944 Broadcasting stations and studio buildings (Radio and TV)
.948 Recording studio buildings, incl. gramophone recording studios
.97 Drawing office, art studio and photographic studio buildings
.98 Film studio buildings

728 DOMESTIC ARCHITECTURE. HOUSING. RESIDENTIAL BUILDINGS
→ 725.17

Use the (4/9) auxiliaries and .0 divisions from 72 and 721, e.g.

.01 General design, disposition, space division, etc.

.03 Periods and styles of domestic architecture. Historic houses
≙ 7.03 and 72.03

.05 Parts, spaces, rooms for specific uses
≙ 721.05

728.1 HOUSING AND DWELLINGS GENERALLY
→ 331.833; 333; 347.2

:334 Co-operative dwellings

:351.778.5 Social housing dwellings

.011 General design, disposition, space division, etc.
≙ 72.011

.013 Dimensional and modular co-ordination (dwellings)

.05 Parts, spaces, rooms for specific uses
≙ 721.05, e.g.

.051 General spaces: access, approaches, parking and garage space

.052 Entrances and circulation: cloakrooms, lobbies, corridors, stairways

.057 Kitchen, catering and dining space
(including staff quarters in hotels)

.058 Reception and living rooms, bedrooms and toilet space

.059 Ancillary parts, annexes, extension rooms
→ 728.9

.11 Urban housing and dwellings

.12 Rural housing and dwellings
→ 728.6; 728.8

.18 Temporary housing and dwellings.Huts, shacks, shanties, log-cabins, etc.

728.2 Multi-family dwellings. Blocks (flats), maisonettes, etc.

.011.26 Blocks according to number of storeys

.22 Blocks of flats (tenements, service flats, etc.)Apartment blocks

.222 Tenement blocks (low-rent flats)

.224 Smaller blocks (with less than 10 flats)

.226 Service flats. Luxury flats

.24 Maisonettes (blocks or houses, with two-floor tenancies)

.27 Boarding or apartment houses (permanent or semi-permanent residents)
→ 728.4/.5, esp. 728.52

728.3 Single-family dwellings. Urban houses, bungalows, etc.
→ 728.6

.31 Terraced houses (in rows, between party walls)
.34 Semi-detached houses
.37 Detached, fully detached houses

728.4 Residential buildings of organizations. Club buildings, etc.
→ 728.5

.42 Residential buildings and rest homes of industrial organizations
→ 725.56
.45 Halls of residence. Students' residential clubs and hostels
→ 728.54
.46 Residential clubs and hostels of welfare societies
.48 Club buildings, clubhouses (social, recreational, sporting, etc.)

728.5 Hotels, guesthouses, travellers' inns and hostels

.05 Parts, spaces, rooms for specific uses
≙ 721.05, e.g.
.052 Entry/exit. Reception and enquiries. Foyer, etc.
.057 Kitchen, catering, dining and restaurant space
→ 725.71
.058.2 Lounges, sitting rooms
.5 Bedrooms, guest bedrooms
.51 Hotels, town hotels (luxury, private, commercial, etc.)
.52 Spa, health- and pleasure-resort hotels (usually seasonal). Holiday guesthouses, boarding houses and pensions
→ 728.27
.53 Country inns and guesthouses. Travellers' rest-houses. Motels. Botels
.54 Youth hostels
→ 728.45
.55 Common lodging-houses, doss-houses
→ 725.55

728.6 Rural domestic architecture and (smaller) dwellings
→ 728.12; 728.84

.61 Cottages and similar small dwellings
.67 Farmhouses (with their dependences)
→ 631.2; 728.9

728.7	Occasional and mobile dwellings
.71	Occasional (weekend, holiday)cabins, huts, lodges, chalets
"32"	Seasonal types, e.g. summer or winter chalets → 728.991
(2)	Physiographic location, e.g. mountain, lake or seaside
.76	Wheeled dwellings. Caravans → 629.11
.77	Floating dwellings. Houseboats → 629.12
728.8	Isolated domestic buildings. Castles. Stately homes. Country houses → 725.17; 728.6
.81	Castles, fortified or semi-fortified → 725.183
.051.8	Ramparts, bastions, gateways, wards, keeps, strongpoints, → 623.1; 725.96
.82	Chateaux, unfortified castles. Country seats or mansions → 725.17
.83	Manor houses
.84	Country houses → 728.12; 728.3
728.9	Outbuildings, sheds and other (domestic) dependencies → 631.2; 721.059
.94	Outbuildings and sheds for keeping and storing tools, produce and vehicles → 631.24/.25
.949	Outbuildings and sheds for vehicles. Coachhouses and garages → 721.051.6
.96	Outbuildings and sheds for animals. Stables, kennels, etc. → 631.22
.97	Cold-store buildings and sheds. Ice halls, cellars, etc. → 725.355
.98	Glasshouses, greenhouses, hothouses, conservatories, etc. → 72.011.7
.99	Shelters and minor garden structures → 712.6/.7
.991	Garden shelters, summerhouses, arbours Cf. 728.71
.992	Staff shelters, gate-porters' lodges, etc.

729 ARCHITECTURAL DETAIL, DECORATION AND FITTINGS (GENERALLY)

Use (4/9), "..." and .0 (especially .03),
preferably with 72/728

.1 Architectural decoration and ornament in general

.3 Basic architectural forms and features
(detail and decorative treatment of elements)
Use :69.02 and :693/694

.4 Painted decoration on buildings
→ 698.1; 729.7/.8; 75.052 and cf. 747

.5 Relief, carved, sculptured decoration
→ 73

.6 Facings and surface finishes: plaster, panel, etc.
→ 693.6

.7 Mosaic and tile decoration
→ 666.6; 693.74; 738

.8 Vitreous decoration, stained or painted glass
→ 666.1; 698.3; 748

.9 Decorative fittings, fixed or built-in furniture
→ 645; 684; 747/749

73 SCULPTURE AND THE PLASTIC ARTS

→ 681.9

73.0	Generalities. Theory, technique, etc. ≙ 7.0, e.g.
.01	Aesthetics. Design. Composition, etc. ≙ 7.01
.02	Technique, equipment and materials ≙ 7.02, e.g.
.021	Drafting out. Modelling. Execution. Craftsmanship → 73.027
.022	Tools, equipment: hammers, chisels, etc. → 681.9
.023	Materials: choice, etc. Specify further by :66/67, but → 736/739 and 748
.1	Wood (carving, working)
.2	Stone. Marble
.3	Metal. Bronze, etc.(working, casting) → 739.5
.4	Clay, plaster, etc.(modelling, casting) → 738
.5	Ivory (carving, etc.)
.6	Wax (modelling)
.7	Other materials. Mixed materials
.025	Damage. Treatment. Cleaning, etc. Restoration
.026	Copying. Reproduction(s). Facsimiles. Casts
.027	Mode of execution (round, relief)
.1	In the round (free). Statues
.2	In relief (high-, bas-). Friezes, etc.
.03	Styles, periods, influences ≙ 7.03, e.g.
.031.6	African primitive carvings (Benin bronzes, etc.)
.034	Renaissance, Baroque and Rococo sculpture
.036	Modern, realist, expressionist, abstract, etc. sculpture
.04	Subjects (iconography) ≙ 7.04, e.g.
.041	Human form: heads, busts, groups, etc.
.042	Animals, real or imaginary
.048	Pattern and line ornament

73.05	Applications of sculpture and plastic arts, e.g.
:62	in industry and technology
:64	in the house and home
.07	Occupations connected with sculpture: Sculptors, experts, collectors, dealers, etc.
.078	Official encouragement and patronage of sculpture
730	SCULPTURE (AS DISTINCT FROM OTHER PLASTIC ARTS 736/739)
.0...	Theory, technique, etc. ≙ 7.0 and 73.0
736/739	PLASTIC ARTS RELATED TO SCULPTURE
736	STONE AND METAL CUTTING AND ENGRAVING → 671; 681.9; 737
736.2	Glyptography. Gem and (precious) stone engraving. Cameos, inscriptions, etc.
736.3	Sigillography. Sphragistics. Seals. Signets. Stamps. Dies → 681.626; 929.6; 930.27
737	NUMISMATICS. COINS. MEDALS, ETC. → 671.4
737.1	Coins
.11	Coins according to issuer: ruler, state, city, organization, etc.
.12	Coins according to material used .121/.128 ≙ 669.1/.8, e.g.
.122.1	Gold coins
.2	Silver coins
.123	Copper, brass and bronze coins
.129	Nonmetallic coins
.14	Coins according to form: milled, perforated, etc.
737.2	Medals
.22	Memorial medals, Military medals
.27	Medals or medallions as charms, amulets, etc.
737.3	Tokens, counters, etc.

738 CERAMIC ART. POTTERY, ETC.
→ 666.3/.7

.1 Porcelain

.2 Majolica

.3 Faience and earthenware

.4 Enamel. Cloisonne

.5 Mosaic
→ 729.7

.6 Terra-cotta

.8 Various ceramic or pottery articles

.81 Tiles

.84 Tanagra

739 ARTISTIC METALWORK
→ 671; 749

.1 Gold- and silver-smiths' art

.2 Jewellers' art

.3 Artistic horology. Timepieces
→ 681.1

.4 Artistic ironwork. Artistic locksmiths' work
→ 672; 683.3

.5 Artistic copper-, bronze-, tin- and pewter-work, etc.
→ 673; 683

.7 Artistic gun and armour work
→ 623.4; 683.4

.8 Curios and bric-à-brac. Antiques

74/76 GRAPHIC AND DECORATIVE ARTS.
DRAWING, PAINTING, ENGRAVING, ETC.

74	DRAWING AND MINOR (DECORATIVE) ARTS OR CRAFTS
741/744	DRAWING
741	DRAWING AND SKETCHING (IN GENERAL) Cf. 75; 75.021
741.0	Generalities. Theory. Technique, etc. ≙ 7.0, e.g.
.01	Aesthetics: design, composition, etc.
.02	Technique, equipment, materials
.021	Draughtsmanship. Rough sketches. Outlines, etc.
.022	Equipment: pencils, rubbers, etc.
.025	Damage. Deterioration. Preservation, etc.
.03	Styles, periods ≙ 7.03
.04	Subjects (iconography).Human form,animals,plants,landscapes,etc. ≙ 7.04
741.5	Caricature. Cartoons, e.g.
:32	Political [illegible] cartoons
741.7	Scissor-cuts. Silhouettes, etc.
742	Perspective(drawing) → 515.6; 7.017
.4	Aerial perspective (drawing). Bird's-eye-view
.5	Shadow perspective. Shading
743	Anatomical drawing → 611

744 **Technical, geometrical drawing. Lettering**
→ 515

.2 Planning and arranging of drawing studios. Placement of drawing tables, lights, etc.
.3 Technical drawing equipment
.32 Drawing tables, boards. Drawing machines
.34 Drawing instruments and appliances
→ 531.7; 686.8
.341 Rules, squares, T-squares
.342 Compasses, protractors. Dividers, etc.
.343 Drawing pens, pencils, scribers, etc.
→ 686.863
.345 Curve-drawing appliances
.346 Pantographs and other appliances
.347 Drawing stencils
.4 Drawing methods and conventions
.42 Types of drawings
.43 Execution. Thickness nad types of lines. Colour. Entry of measurements. Text, etc.
.44 Instructions
.5 Reproductions. Copying. Tracing
.8 Storage and preservation of drawings

744.9 **Lettering** (ornamental, heraldic and display). Sign-writing (posters, shop and inn signs)

:659.13 Advertising and publicity work
:929.6 Heraldic lettering

745/749 MINOR DECORATIVE ARTS AND CRAFTS. INTERIOR DECORATION
→ 689; 7.05
Divide by :0/9

745 **Decorative, ornamental and art handicrafts**

.03 Styles
≐ 7.03
.04 Subjects
≐ 7.04
745.5 Art handicrafts according to material
.51 Art wood-craft
→ 674; 749

745.52	Artistic textile handicraft → 677; 746
.53	Art leather-craft → 675
.54	Art paper-craft → 676
.55	Artistic handicrafts articles in ivory, horn, bones, scales, etc.
746	Art needlecrafts, hand weaving, etc. → 646; 677
.1	Hand weaving. Tapestry → 745.52
.2	Lace-work, lace-making → 677.65/.66
.21	Bobbin- and pillow-lace making
.22	Tatting
.25	Plaiting and knotting
.26	Netting
.28	Tulle making
.3	Hand embroidery → 677.77
.31	Embroidery on countable material
.32	Open embroidery
.33	White embroidery
.34	Colour embroidery
.35	Smocking
.36	Quilting
.4	Fine needlework, knitting, crochet
.5	Pearl-work
.6	Bast-, raffia-work
.7	Rush-, cane and wicker-work → 677.54
747	Interior decoration (generally) → 159.937.51; 643/645
:643	Interior decoration of the home
:725.71	Interior decoration of restaurants
:727.1	Interior decoration of school rooms
.5	Window-dressing (as art) → 659.158 (publicity aspect)

748	Artistic glass and crystal → 666.1/.2; 698.3; 75.023
749	Artistic, period furniture and furnishing → 684; 739
.03	Styles, periods: Jacobean, Georgian, etc. ≙ 7.03
.1	Artistic, period furniture → 645.4; 684.4
.2	Artistic, period fireplaces, stoves and lamps → 683.8/.9
75	PAINTING
75.0	Generalities. Theory. Technique ≙ 7.0, e.g.
.01	Aesthetics, theory, taste. Composition, harmony, rhythm and line ≙ 7.01
.017	Optical effects. Chiaroscuro. Colour and texture, etc. → 535.6
.02	Technique. Equipment and materials ≙ 7.02, e.g.
.021	Execution. Craftsmanship
.021.2	Preliminary preparation of surface. Draughting, sketching out
.022	Tools, equipment: brushes, knives, palettes, easels
.023	Materials: foundations, colours, varnishes
.1	Foundation: wood, canvas, metal, fabric, etc.
.2	Colours, paints, pigments, etc. → 667.6
.21	Oils. Oil paints. Painting inoils
.22	Water-colours (aquarelles) and inks
.23	Pastels, crayons. Chalks. Charcoal
.24	Encaustic (wax). Fresco. Tempera
.025	Damage. Deterioration. Treatment. Cleaning
.4	Restoration
.026	Copying. Reproductions. Facsimiles → 75.06

75.03	Styles, periods, influences ≙ 7.03, e.g.
.031	Prehistoric and primitive painting(s)
.032	Ancient oriental and classical painting(s)
.033	Mediaeval painting(s)
.034	Renaissance, baroque and rococo painting(s)
.035	Post-renaissance. Classicism and the Romantic Movement
.036	Modern painting(s). Realism. Impressionism, etc.
.7	Expressionism. Abstract painting(s) → 75.048
75.04	Subjects (iconography) of painting ≙ 7.04, e.g.
.041	Human form and activity. Genre painting(s)
.5	Portrait painting. Self-portraits, etc.
.042	Animals, animal life
.043	Plants, plant life
.044	Historic subjects, ceremonies, etc.
.045	Allegoric and symbolic painting(s) subjects
.046	Epic, mythological, religious subjects
.047	Landscapes. Townscapes. Seascapes
.048	Pure colour patterns and line painting → 75.036.7
.049	Still life and other subjects
75.05	Uses, applications of painting
:929.6	Heraldic painting
.051	Pictures, hung or panel (diptych, triptych)
.052	Murals (frescoes, etc.). Architectural decorative painting
.054	Theatre, stage scenery painting → 688.74; 792.023
.055	Painting of vases, sculptures, etc.
.056	Miniature painting and miniatures
.057	Illuminating (of manuscripts), book illustration, etc.
.06	Ethical, social and other aspects of painting. Forgery and fakes. Plagiarism, etc. ≙ 7.06
.07	Occupations connected with painting: painters, experts, critics, collectors, dealers, etc. ≙ 7.07
.078	Official encouragement and patronage of painting

753/759	Painting(s) according to subjects treated Preferably use 75.04
753	Epic, mythological subjects. Allegories and symbols -preferably use 75.045/.046
754	Genre painting -preferably use 75.041
755	Religious painting -preferably use 75.046
756	Historical painting -preferably use 75.044
757	Portrait painting. The nude -preferably use 75.041 and 75.041.5
758	Nature painting. Landscapes. Animals. Plants. Still life -preferably use 75.047, also 75.042/.043 and 75.049
759	Other painting, e.g. heraldic, colour pattern and line -preferably use 75.048/.049 and 75.05:929.6,etc.
76	ENGRAVING AND PRINTS (GRAPHIC ART) → 655; 774/777
.0	Generalities. Theory. Technique & 7.0 broadly, e.g.
.02	Technique, equipment, materials
.022	Tools: burins, gravers, etc.
.023	Materials. Choice, etc.
.1/.3	Wood. Stone. Metal (copper, steel, zinc)
.024	Accessories: acids, etc.
.026	Impression, inking, printing, etc.
.03	Styles, periods, influences & 7.03
.04	Subject (iconography)
761	Relief engraving. Woodcuts, lino cuts. Metal relief
762	Intaglio engraving (copper, steel). Etching
.1	Tool engraving. Dry point. Mezzotint
.2	Etching. Soft-ground. Aquatint

763 Flat (planographic) printing. Lithography

766 Applied, commercial graphic art

:659.133.1 Poster designing and engraving

769 Collections of engravings, etchings and prints

77 PHOTOGRAPHY AND CINEMATOGRAPHY

77-1/-8 Mechanical details
≙ 62-1/-8 (except -6)

.01 Theory, principles and nature of photographic phenomena
→ 535; 541.14

.019 Deleterious influences and defects generally
→ 77.069

77.02 PHOTOGRAPHIC OPERATIONS: MANUFACTURE, EXPOSURE, PROCESSING, STORAGE
→ 771

.021 Manufacture of sensitive and auxiliary materials, and treatment prior to exposure
→ 771.5

.1 Manufacture of sensitive materials, emulsions, additions, etc.
.11 Processes for preparing emulsions and sensitive mixtures
.12 Special types of emulsions or mixtures, e.g. without vehicle carrier, fine-grain, reversal
→ 771.531
.13 Special additions to emulsions and sensitive mixtures, e.g. stabilisers, sensitizers, hardening and coating agents
→ 771.534
.14 Melting before coating (second melting)
.15 Application of sensitive mixtures to supports. Coating
→ 77.021.5; 771.531
.16 Drying (including paper)
.17 Cutting, perforating, identification, etc.
:621.96 Machines for cutting and perforating
.18 Packing and confection (into spools, filmpacks, etc.)
.3 Application by the user (with ready-made, manufactured mixtures). Hand coating. Self coating

77.021.5	Types of coating on sensitive materials
.51	Substrata. Underlayers
.53	Sensitive coatings (single and multiple)
.54	Intermediate coatings. Separating coatings
.55	Protective coatings. Anti-abrasion and anti-static coatings
.56	Light-filter coatings
.57	Stipping coatings
.58	Backing layers: anti-curl, anti-halation
.59	Other coatings, e.g. anti-Newton-ring
.6	Coating of auxiliary (non-sensitive) materials, e.g. for image transfer
.9	Pretreatment of sensitive materials (prior to exposure)
.022	Exposure and related work → 771.2/.44
.1	Choice and arrangement of model and subject. Photographic perspective. Pictorial appreciation
.4	Choice and arrangement of lighting, backgrounds, etc.
.5	Appreciation of the lighting → 771.376
.7	Adjusting the aperture
.8	Adjusting the distance setting. Depth of field (calculation). Focusing → 535.818
77.023	Processing work, developing, toning, fixing, etc. → 771.4; 771.7
.019	Processing defects
.2	Preparation of baths and developing apparatus
.3	Handling and treatment of exposed materials before developing
.38	Treatment before developing: latensification, desensitisation → 771.534.3
.023.4	Development → 771.43; 771.72
.41	Chemical development → 778.62
.412	Development according to apparatus used: dish, tank, machine development
.413	Two-bath development

77.023.415 Development for special effects
→ 771.537

.2 Development influencing sensitometric properties (emulsion speed, contrast, reversal)
Cf. 771.534.54

.3 Development influencing grain, sharpness and resolution

.5 Development influencing image colour
→ 778.625

.7 Development influencing mechanical properties (tanning, etching)

.417 Development techniques for special conditions

(21) in cold temperature and tropical climates

.12 Low temperature (below 18°C)

.14 High temperature (above 18°C)

.2 Strong-light, daylight development

.3 Rapid development

.42 "Physical" development (so-called), i.e. silver deposition from developer at places of silver nuclei

.421 Before fixing

.422 After fixing

.43 Development by gases, e.g. ammonia

.44 Semi-dry development

.46 Development by physical agencies, e.g. electrolytic development, heat development

.5 Toning before fixing
→ 773.525

.7 Work on the developed image

.71 Hardening

.72 Stopping

.73 Clearing and fixing. Fixing out

.74 Other work on the developed image. Intensification. Reduction. Bleaching. Toning. Subsequent reversal
→ 77.023.415.2

.8 Removal of fixing salts. Hypo elimination. Drying

.9 Other processing work following exposure
→ 778.1

.024 Finishing of negatives and prints
→ 771.45

.1 Retouching

.2 Tinting

77.024.4	Mounting. Pasting up
.48	Photomontage
.5	Trimming
.7	Glazing, cold and hot
.8	Transferring to glass, porcelain, etc.
.9	Embossing, producing relief effects in the print
.025	Preservation and storage, filing and display of photographs → 771.46
.1	Precautions against deterioration → 77.019
.3	Storage (in boxes, envelopes, albums)
.4	Filing and labelling
.5	Framing
.6	Displaying, exhibiting, hanging, etc.
.7	Viewing
.8	Restoration and repair: removal of scratches, cleaning supports
.027	Restoration, regeneration, recovery and re-utilisation of photographic materials, solutions, etc.
77.03/.08	DIFFERENT KINDS OF PHOTOGRAPHY AND PHOTOGRAPHS (see note under 77.03)
77.03	Documentary photography. Photographic records and their interpretation
	This number, whose divisions are particularly relevant at 779 for grouping collections, may be used throughout 77 as a general affix (subsuming .031/.08) to denote photographs and their interpretation, e.g. 778.33.03 Radiographs (and their interpretation) generally
.031	Photographs of natural objects, visible and stationary
.033	Photographs of artificial, man-made objects, works of art, etc.
:72	Architectural photographs
.034	Photographs of movement, objects in motion → 778.5
:796	Sport photographs
.035	Photographs of microscopic objects (photomicrographs) → 778.315
.038	Photographs of scientific phenomena: physical, chemical or biological
.039	Document photography. Reproduction photographs or prints → 778.1

77.04 Pictorial (artistic) photography and photographs (according to subject)

≙ 7.04, e.g.

.041 Human form, face and body. Life studies

  .5 Portraits and portrait photography

.044 Reportage or news photography.
Current events of immediate or historic interest, e.g.

  :656.1.08 Photographs of street accidents

.047 Landscapes, seascapes. Mountain and snow scenes, etc.
Nature and wild life photography generally

77.05 Photography, exposures according to ambient conditions

.051 Daylight exposures

.052 Artificial and flashlight flashlight exposures
→ 771.44

.053 Combined lighting exposures. Night photographs or exposures

  .8 Night exposure without additional lighting

.054 Time exposures

.055 Instantaneous exposures. Snapshots
→ 778.37

.056 Outdoor exposures

.057 Indoor exposures

.058 Photographs taken from the air or under water

  .1 From the air, from high altitudes (bird's-eye-view)
  → 778.35

  .2 Underwater photography

77.06 Photographs, pictures or prints by appearance, form and size

.061 Shadow pictures, photograms (obtained without camera)

.062 Photographic copies or prints generally
→ 77.039; 77.08; 778.1

.063 Positives (for duplicate positives use added .082)

.064 Negatives (for duplicate negatives use added .082)

.065 Black-tone photographs, black-and-white

.066 Monochromes, e.g. blue, green, brown, sepia

.067 Colour photographs
→ 778.6; 778.675

77.068 Sizes of photographs, pictures and bases

.2 Small formats up to 35mm gauge (8mm, 16mm, etc.)

.3 Medium formats up to postcard size

.4 Large formats
→ 778.123

.069 Defects manifested or registered in negatives or prints
→ 77.019

77.07 Photographs according to (materials of) support or base

→ 771.52

.071 Opaque prints (on paper, card, etc.)

.072 Transparencies (on glass, film, etc.)

.073 Photographs on metal or bi-metallic surfaces

.075 Photographs on non-metallic mineral supports (except "transparencies on glass"), e.g. porcelain or other ceramics, stone, plaster

.076 Photographs on wood or woody materials, cork, etc.

.077 Photographs on textile fabrics or cloth

.079 Photographs on rubber, plastics and other synthetic materials

77.08 Photographs, pictures according to intermediate stages

.082 Duplicate negatives and positives ("dupes")
Cf. 77.063/.064

.084 Prints, indirectly obtained from a negative

.086 Directly obtained pictures, e.g. daguerrotype

.087 Photographs obtained by reversal

77.09 Other matters, e.g. photographic competitions

≙ 7.09

771 PHOTOGRAPHIC EQUIPMENT, APPARATUS AND MATERIALS

771.1 Buildings and departments (for photographic purposes)

.12 Studios. Film studios
→ 727.97/.98

.13 Photofinishing laboratories. Developing and printing rooms
→ 771.4

.15 Research establishments and laboratories
→ 061.6; 727.5

.16 Factories and workshops

771.2	Studio, laboratory and darkroom. Equipment, lighting, fittings, etc.
.24	Darkroom lighting and lights. Safe-lights → 771.44
.29	Motion picture (film) studio and laboratory equipment
771.3	EXPOSURE APPARATUS. CAMERAS. ENLARGERS → 535.8; 778.53
771.31	Cameras and other exposure apparatus → 535.818; 778.53
.311	Studio cameras
.312	Portable stand cameras
.313	Hand cameras
.1	Plate and sheet film cameras
.2	Roll-film cameras
.3	Film-pack cameras
.4	Miniature cameras generally, including cameras using cine film for single exposure
.314	Cameras according to structural design
.2	Extension cameras
.5	Rigid and box cameras
.315	Binocular cameras → 778.42
.316	Panoramic cameras → 778.35/.36
.317	Pfocess cameras (graphic arts, photomechanical) → 774/777
.318	Duplicating or copying apparatus: cameras, enlargers, etc. → 778.1
.1	Contact copying apparatus. Duplicating machines → 771.319.7
.2	Copying cameras
.3	"Photostat" and similar cameras
.5	Enlargers
.8	Devices for determining exposure time → 771.376

771.319	Special function cameras, e.g. : 548.733 X-ray diffraction cameras (crystallography)
.1	Multiple-exposure cameras. Sequence cameras
.2	Pin-hole cameras, e.g. :778.33 for radiography
.3	Automatic photographic machines
.5	Astronomical and photogrammetric cameras → 522.61; 528.71; 778.32/.35
.6	Beam-splitting cameras, one-shot beam-splitters
.7	Cameras incorporating processing/developing devices → 771.318.1; 771.327
771.32	Holders, carriers, dark slides, adapters
.327	Processing, developing attachments (for copying cameras) → 771.319.7
771.33	Devices for daylight loading, changing and positioning
.331	Changing devices for plates and sheet film
.332	Film spools
.333	Roll-film cassettes, cartridges
.334	Film packs
.337	Film-positioning mechanisms and indicating devices
771.34	Stands, tripods, supports
.343	Telescopic stands
.346	Stands for close work. Copying stands
.347	Parts of stands: tripod heads, tilting devices, slide-rails, etc.
771.35	Optical parts and attachments: lenses, etc. → 535, esp. 535.8
.351	Photographic camera objectives. Lenses → 535.31; 535.18
.1	Simple objectives
.2	Anastigmats
.3	Wide-angle lenses
.4	Telephoto lenses → 778.32
.5	Portrait lenses
.6	Process lenses
.7	Special lenses, e.g. soft- and variable-focus, anamorphote → 771.355.7
.352	Lens mounts
.354	Diaphragms

771.355	Optical attachments other than filters. Zero-power systems
.7	Soft-focus (filter) attachments, e.g. zone lenses
.356	Filter attachments and holders → 771.449.5/.8
.358	Lens hoods. Movable apertures for cine cameras to produce vignetting effects. Masks
.359	Screens and screen attachments details
771.36	Shutters and releases
.364	Repeater shutters
.366	Slot, roller-blind shutters
.367	Between-lens shutters, e.g. everset shutters
.368	Releases: self-timers, flash-synchronisers, etc.
771.37	Camera accessories
.371	View-finders
.3	Telescopic (non-focusing) view-finders and similar equipment
.5	Focusing view-finders
.372	Distance meters. Telemeters. Range-finders
.373	Levels. Clinometers
.376	Accessories for determining exposure and quality of light
.2	Exposure tables
.3	Exposure meters
.33	Optical exposure meters. Photometers
.35	Photoelectric exposure meters
.6	Colour temperature meters for photography → 535.233
.377	Magnifiers and similar focusing devices
.378	Ground glass screens. Focusing screens and hoods
.38	Containers, cases, bags, etc.
771.4	PROCESSING EQUIPMENT (EXCLUDING EXPOSURE APPARATUS) → 77.023; 771.2
.41	Cutting and marking equipment. Glasses. Masks, etc.
.416	Determination of printing time
.42	Printing frames and machines → 771.318
.427	Printing machines and boxes. Automatic printers

771.43	Developing apparatus, etc.
.431	Developing dishes
.432	Developing tanks and machines
.3	Developing machines. Continuous treatment machines
.435	Washing equipment
.436	Drying and glazing equipment
.44	Lighting and light sources for exposure and printing → 535; 628.9; 771.24
:628.92	Natural lighting
:628.93	Artificial lighting (generally)
.447	Continuous artificial lighting. Lamps or other sources → 62132; 683.8
.448	Flash-lighting, flash-light sources
.2	Flash powders (magnesium, aluminium, etc.) Igniters
.24	Igniting devices for flash powders
.4	Flash bulbs and igniters → 771.368
.6	Electronic and stroboscopic flash
.449	Light-controlling devices. Filters → 771.351.7; 771.355.7
.5	Light filters (generalities) Cf. 771.534.25
.6	Filters controlling total light intensity. Neutral filters
.7	Filters controlling spectral distribution. Colour filters
.45	Finishing, retouching, colouring, mounting equipment. Presses,etc Use .024... from 77.024
.46	Storing. Filing. Display and viewing equipment Use .025... from 77.025
771.5	PHOTOGRAPHIC (NEGATIVE AND POSITIVE) MATERIALS Emulsion vehicles, bases or supports, sensitized materials and their characteristics
771.51	Emulsion vehicles. Vehicles for light-sensitive substances generally
.511	Collodion, gelatin, synthetic macromoleculars, etc.
771.52	Supports for sensitive materials. Bases → 77.07
.521	Glass
.522	Paper
.523	Plastic film. Safety film → 678.5/.8

771.524 Metal supports, plates, foils

.526 Special stripping or transfer materials as temporary supports
→ 77.021.57

771.53 Sensitised materials. Finished products and their characteristics

Denote support by .07... or 771.52, e.g.

:771.524 Sensitised materials on metal supports

.531 Types of sensitised materials and their manufacture

.021 Manufacture, coating, etc.

.068 Sizes, formats

.1 Dry plates: X-ray, lantern, etc.

.2 Papers: gas-light, printing-out (daylight), etc.

.3 Films

.31 Film in roll form

.32 Film in sheet form (including film packs)

.35 Cinematograph film

.351 Standard gauge film (35mm)

.352 Narrow gauge film (e.g. 8mm, 9mm, 16mm)

.353 Wide gauge (e.g. 70mm)

.37 Special films, e.g.

:778.33 X-ray (Röntgen) film

:778.35 Aero film

.5 Uncoated emulsions

.533 Properties of undeveloped light-sensitive emulsions

.3 Physical properties, e.g. light scatter, grain size

.4 Chemical properties

.534 Sensitivity
→ 535, esp. 535.217; 541.14

.1 General sensitivity. Increasing sensitivity

.13 Sensitisation. Increasing sensitivity by various means, especially digestion and chemical sensitisation, e.g.

:546.593 Gold sensitisation

.14 Hypersensitisation (of coated products)
Cf. 771.534.24

771.534.2	Spectral sensitivity. Optical sensitisation → 535.232.6
.21	Sensitisation by dyes → 77.021.13
.23	Sensitisation for specific spectral regions
.231	Without special colour sensitivity. Blue sensitivity
.232	Orthochromatic sensitivity (extending to yellow)
.233	Panchromatic sensitivity Extending to red)
.237	Ultra-violet sensitisation (UV)
.238	Infra-red sensitisation (IR)
.24	Supersensitisation. Cf. 771.534.14
.25	Filter factors. Cf. 771.449.5
.26	Control of spectral sensitivity by screening dyes → 77.021.56
.3	Desensitisation → 77.021.13; 77.023.38
.32	Desensitisation by means of dyes
.4	Density. Contrast. Density range
.5	Sensitivity measurement. Sensitometry
.51	Systems of sensitometry Divide alphabetically A/Z by names, e.g. ASA
.52	Sensitometers: time scale, intensity scale, etc.
.53	Density law. Charateristic curves. Densitometry and densitometers. Exposure and reciprocity laws. Solarization, etc. Cf. 771.537.4
.54	Sensitometric contrast and gradation. Gamma value → 77.023.415.2; 771.537.44
.58	Various effects of successive radiations: Herschel, Becquerel, Villard effects
.59	Fog
.535	Latent image. Reactions of silver nuclei. Regression. Fading
.536	Distortion of image and material
.2	Dimensional changes. Stretch. Shrinkage. Curl
.3	Reticulation. Cf.778.153
.537	Properties of the developed image. Picture quality in general → 77.023.4; 77.023.417; 778.15
.2	Colour
.3	Grain, e.g. covering power, granularity

771.537.4 Density. Callier coefficient. Density range

.44 Contrast
Cf. 771.534.54

.6 Definition and detail. Resolution. Sharpness, acutance. Halation. Development effects

.8 Chemical properties

.538 Direct blackening. Printing-out

771.7 PHOTOGRAPHIC CHEMICALS, SOLUTIONS AND FINISHING MATERIALS
→ 661.14 (manufacture)

Specify agents by :546/547 and :66...

:772/778 Chemical agents for specific photographic systems,
→ 773.71

.02... Chemical agents for specific processing techniques

.71 Baths and solutions generally: composition, preparation, use

771.72 Developers, developing agents and additions

.019 Faults and defects

.023.4 Agents for specific developing techniques

.027 Replenishers

.725 Colour developers. Cf. 778.625

.2 Developers containing colour couplers

.4 Developers for emulsions containing colour coupler

.726 Colour couplers

.728 Developer additions. Accelerators

.73 Stopping agents. Stoppers

.74 Fixing, clearing and fixing/toning agents

.75 Toning, bleaching, reducing and intensifying agents

.78 Printing and other (photo) finishing materials, e.g.

:667 Colouring materials: dyes, mordants, etc.

772 PHOTOGRAPHIC SYSTEMS,
ESPECIALLY SYSTEMS USING INORGANIC SUBSTANCES OR PHYSICAL PHENOMENA

772.1/.2 Systems based on the photochemical action of metallic salts

.1 Silver group (silver, copper, mercury)

.11 Systems using a suitably treated silver plate, e.g. daguerrotype

772.12	Silver salts on plain or coated paper, e.g. Galotype
.13	Silver salts in a coating (other than collodion) sensitised by bathing
.14	Collodion processes, incl. silver collodion
.15	Systems using silver salt emulsions, gelatin silver salts
.158	Silver image transfer
.16	Mixtures of silver salts and reducing agents, e.g. catalysotype and callitype processes
[illegible]	[illegible]
.17	Systems using copper salts
.18	Systems using mercury salts
.2	Systems using metals other than silver group metals
.21	Simple ferro-prussiate (blueprint, cyanotype) paper processes
.22	Blueprint processes using a colloidal substance, Cyanofer processes with gum containing an iron salt
.23	Ferro-gallic processes
.25	Manganese salt systems
.27	Cobalt salt systems
[illegible]	[illegible]
.29	Systems using metals other than the silver and iron groups: Pt, Cr, Pb, Sn, V, Mg and other metal groups
772.9	Systems using physical phenomena → 778.34
.93	Electrophotography. Xerography, etc.
.932	Charge recording, e.g. xerography
.933	Current recording, e.g. using electrolytic, electroheating effects
.96	Thermography
773	PHOTOGRAPHIC SYSTEMS USING ORGANIC COMPOUNDS → 774/777; 778.6
773.1	Pigment processes. Carbon processes
.11	Using mixtures sensitised with Chromium salts
.111	Without transfer, e.g. gum bichromate process
.115	Carbon processes using chemical transfer, e.g. ozotype, ozobrome
.117	Multi-colour processes
.15	Using mixtures sensitised with iron salts

773.2	Dusting-on processes, e.g. Resino-pigment
.3	Differential tanning or dyeing, e.g. hydrotype, pinatype
773.5	Dye processes
.51	with Chromium salts
.52	with Chromium and Vanadium salts. Mordant-dye processes
.6	Enamels. Photoceramics. Colour-forming substances in photoceramics
773.7	Processes using dye-forming organic compounds and light-sensitive dyes. Dyeline processes
.71	Diazo processes. Diazotype
.711	General photochemistry and physics of diazo processes
.712	Diazo compounds and other agents used in diazotype → 77.021.1; 771.728
.1	Light-sensitive diazo compounds
.2	Coupling components
.5	Agents for modifying physical characteristics of coating or developing solutions (single components) Cf. 77.021.13
.6	Agents for improving keeping quality, stability to light,etc
.7	Agents for modifying the physical or chemical nature of the developed image. Toners. Mordants, etc.
.8	Compounds used in developing diazo prints. Developers additions
.713	Diazotype with azo dye formation
.1	Single-component (positive) processes
.3	Two-component (positive) processes
.4	Processes involving transfer of image during development
.6	Negative processes
.8	Multicolour diazotype processes
.714	Diazotype without azo dye formation
.1	Colloid hardening
.2	Metallic reduction
.3	Diazo and effects, e.g. vesicle image
.6	Photomechanical processes using diazo compounds → 774/777
.715	Bases for diazotype. Preparation for use Use :771.52... and/or .07...

773.716	Diazotype reflex processes (with or without screen)
.717	Diazotype half-tone processes (with or without screen)
.718	Aftertreatment of diazo prints Use .024/.025 from 77.02
.72	Leuco base processes
.74	Light-sensitive dye (bleach-out) processes
.75	Silver dye bleach processes
773.8	Pigment processes. Bromoil and bromoil transfer processes
.9	Light-sensitive colloid, resin and polymer processes. Bichromated gelatin
774	PHOTOMECHANICAL PROCESSES GENERALLY → 655.3
.2	Support preparation generally
.3	Photomechanical sensitising generally
.4	Exposure to light. Developing. Preparing plate for printing
.6	Transfer processes
.7	Special processes for rendering tonal gradation. Screen processes, aquatone. Cf. 777.3
.8	Multicolour printing processes → 776.8; 777.18; 777.28
.9	Planographic processes using colloidal layers. Collotype
776	PHOTOLITHOGRAPHY → 655.226; 763
.07	According to support material or surface ≙ 77.07, e.g.
.073	Metal surface processes
.075	Stone surface processes
.079	Plastics or rubber surface processes
.1	Photolitho processes according to sensitive material
.11	Using bichromated colloids
.12	Using light-sensitive bitumen
.13	Using silver halide emulsions
.2	Preparation of support. Graining
.3	Preparation of sensitive surface. Sensitising

776.4	Exposure to light, including step-repeat technique, etc.
.42	Developing
.43	Preparing the plate for printing. Desensitizing or etching to affect moisture-retaining properties
.44	Reversal of image. Deep-etch, intaglio litho
.6	Offset photolithography → 655.34; 763
.7	Processes for rendering tonal gradation Cf. 778.155
:777.3	Screen processes (photolithography)
.8	Multicolour photolithography
777	INTAGLIO AND RELIEF PROCESSES. PHOTOGRAVURE. LETTERPRESS RELIEF BLOCKS (LINE AND HALFTONE)
777.1	Intaglio processes. Photogravure. Rotogravure → 655.3; 762; 768
.11	Intaglio processes (generally), e.g. using resists, invert halftone
.12	Preparation of the support
.14	Etching
.15	Revision of the etched surface
.17	Graining of screen processes
.18	Colour printing by photogravure → 778.68
777.2	Relief processes and printing plates. Line and halftone plates → 655.225; 655.32; 777.3
:621.357.7	Electroplating of plates
.21	Relief processes (generally), e.g. using light-sensitized or bichromated colloids and resin. Enamel processes
.22	Exposure to light
.23	Developing
.24	Etching
.27	Processes for rendering tonal gradation → 778.155; 778.68
:777.3	Screen processes (relief, printing plates)
.28	Colour printing from relief blocks

777.3 Translating continuous tone into discontinuous tone elements. Screen negatives
→ 774.7; 776.7; 777.27

.31 Reticulation processes

.32 Halftone screen processes. Screens and their manufacture. Line, grained and contact screens

.33 Producing discontinuous tone by photo-electric scanning
→ 621.383

.4 Multiplication of plates
→ 655.22; 681.617

777.5 Moulding processes. Woodburytype, etc.

.6 Photo-philigranes (Woodbury). Imitation watermarks. Litophany, etc.

.7 Photosculpture. Processes for making photographs in bas-relief, high-relief, models, etc.

.9 Photostencilling and other processes
→ 655.39

778 SPECIAL APPLICATIONS AND TECHNIQUES OF PHOTOGRAPHY.
PHOTOCOPYING, CINEMATOGRAPHY, COLOUR PHOTOGRAPHY, ETC.
Use :0/9 here or under relevant division of 778

:61 Medical photography

778.1 PHOTOCOPYING (REPROGRAPHY). PHOTOGRAPHIC REPRODUCTION AND PRINTING
→ (084.16): 771.317/.318

.11 Contact printing and copying
:744.5 Phototracing(s)
:772.21 Blueprint copying and copies
:773.7 Dyeline copying and copies
.111 Transmission printing (through the original)

.112 Reflex copying
→ 773.716

.12 Projection printing and copying
.122 Same-size (projection) copying
.123 Enlarging → (084.16):771.318.5
.124 Reduction → (084.16);778.14

778.14 Microcopy(ing). Microphotographic technique, equipment

Cf. 778.315

.068 Microcopy dimensions, formats, sizes

.071 Micro-opaques, e.g. paper or card (micro-card)

.072 Microtransparencies, e.g. glass or film (microfilm)

.142 Microcopies, microphotographs (roll, sheet, fiche)→(084.16)

.148 Microcopy reading apparatus and equipment (readers)

  .2 Projection type

  :778.274 Diascopic projection readers

  .6 Direct-viewing type

.15 Special methods for modifying the image
→ 771.537

.151 Geometrical modifications. Rectification. Distortion
Cf. 771.536

.153 Texture effects, e.g. controlled reticulation

.155 Modification of tonal range. "Dodging". Masking

.156 Tone separation

778.18 Reproduction or process photography

→ 655.2

.182 According to type of photographic image or picture: halftone, line, cross-line

.183 According to photographic material used: dry, wet, etc.

.186 Colour separations (for photomechanical processes)
→ 771.317; 771.449; 778.66

.19 Other copying and printing techniques: scanning, electronic, etc.

778.2 PROJECTION. PROJECTORS AND SCREENS

.21 Mechanical parts of projection equipment. Cf. 778.27

.22 Optical parts, lenses, condensers → 535.88

.23 Special light sources, e.g.

  :621.326 Electric filament lamps

.24 Projection screens

778.25 Lantern slides. Positive transparencies. Film-strips

.251 Lantern slides (glass)

.252 Film strips

.253 Film slides

.254 Accessories for making slides: masks, cover glasses, etc.

.26 Framing devices and other accessories

778.27 Lanterns. Projection lanterns. Epidiascopes, etc.
→ 535.88; 778.148

.274 Diascopes (for transparencies)

.275 Episcopes (for opaques)

.276 Epidiascopes (for transparencies or opaques)

778.3 PHOTOGRAPHIC TECHNIQUES WITH MAINLY SCIENTIFIC APPLICATIONS

778.31 Techniques in which the object is photographed on an enlarged scale
→ 535.82; 537.533.3; 621.385.833

.312 Photomacrography (i.e. magnifications up to x 10)

.315 Photomicrography (i.e. using optical microscope). Cf.778.14

.317 Electron micrography (i.e. using electron microscope)
→ 621.385.833

778.32 Telephotography, including astronomical applications
→ 771.319.5; 771.351.4

778.33 X-ray (Röntgen) and gamma-ray photography. Radiography
→ 537.531; 539.26; 548.73; 616-073.75; 620.179.152

.332 Apparatus
→ 621.386

.333 Intensifying screens (photographic uses only)
→ 535.371

778.34 Photography by radiation other than light or X- and gamma-rays
→ 772.9

.342 Ultra-violet ray photography

.344 Infra-red ray photography

.347 Particle-ray photography. Ionography. Electronography.
Autoradiography.
Use :539.12 or :539.16, e.g.

:539.163 Alpha-particle photography

778.35 Aerial photography
→ 528.7 (Photogrammetry)

.03 Aerial photographs and their interpretation

.36 Panoramic photography
→ 771.316

778.37 High-speed, ultra-rapid photography
→ 778.534.8

778.4 STEREOPHOTOGRAPHY. FLAT REPRODUCTION WITH RELIEF EFFECT
→ 612.843.7; 777.7; 778.534.1

.41 Stereophotographic image. Separation and recombination

.42 Stereoscopic cameras
→ 771.315 771.347

.43 Making, processing and finishing of stereoscopic photographs. Prints, stereo pairs
→ (084.15)

.44 Stereo(scopic) viewers. Spectacles and stereoscopes

,45 Stereoscopic projection

778.5 CINEMATOGRAPHY. MOTION-PICTURE PHOTOGRAPHY. Cf. 791.4

Class information on equipment, materials and processes common to photography and cinematography under 77.0, 771, etc.

.51 Early and primitive animated pictures, drawings and other non-photographical forms. Flickers, mutoscopes, zoescopes, zoetropes, etc.
→ 74/741.5

.52 Photographs at fixed intervals allowing reconstitution of motion. Chronophotography
→ 778.534.8; 778.82

778.53 Cinematographic filming, exposure or registration(takes, shots): methods, cameras and equipment, film and materials
→ 778.55, but class matters common to filmingand projection here

.531 Cameras (with intermittent film movement)

.532 Cameras with continuous film movement

778.533	Camera parts. Cf. 778.553
.1	Feeding devices and guides, sprockets, rollers
.2	Gates. Framing devices
.3	Shutters (bladed)
.4	Film magazines, spools
.5	Take-up and rewind devices
.6	Operating mechanisms (mechanical, electrical, etc.)
.9	Safety devices, ventilation. Indicators, etc.
.534	Special methods of cinematography
.1	Stereocinematography. Systems giving spatial effects. Cf.778.4
.12	Stero pairs giving parallax effect
.13	Alternate illumination of right and left images
.16	Wide-screen and panoramic systems
.2	Colour cinematography. Colour films. Cf. 778.6
.3	Cinematography with film loops
.4	Sound record, sound film. Cf. 681.84
.42	Sound record (separate from film, for silent film)
.45	Sound film (with sound track on the film), e.g. striping
.46	Stereophonic sound film
.48	Synchronization of picture and sound track. Post-synchronization. Dubbing, playback, mixing Cf. 778.588.8
.6	Trick work. Special effects. Film cartoons → 741; 778.8
.7	Producing composite pictures, e.g. background projection
.8	Taking-frequency: time-lapse and high-speed cinematography (for slow-motion pictures) → 778.37
.535	Other problems of filming. Titles, sub-titles. Leaders, etc.
.54	Direct viewing apparatus for pictures of moving objects
778.55	Cinematographic projection and projectors → 725.824; 778.2; 791.45 and see note under 778.53
.551	Projectors with intermittent film motion
.552	Projectors with continuous film motion
.553	Projector parts ≙ 778.533, e.g.
.6	Operating mechanisms, frame-speed devices, etc.
.554	Special methods of projection ≙ 778.534, where appropriate
.4	Sound film projection. Synchronization

778.58	Treatment of cinematograph film: examination, alteration, etc.
.582	Splicing, cutting and joining, etc.
.583	Perforation of printed film
.587	Cleaning, delubrication, applying protective layers, scratch removal
.588	Printing and prints: laboratories, etc.
.2	Contact prints
.3	Optical printing. Reduction. Enlargement
.5	Fades and wipes
.8	Subsequent over-printing of captions or sound-track
778.6	COLOUR PHOTOGRAPHY → 535.6
.62	Monochrome components (of 3-colour or other polychrome systems)
.625	Colour-forming development. Cf. 771.725/.726
.63	Direct colour photography processes → 771.319.6
.64	Additive processes. Cf. 773
.643	Screen processes
.644	Stencil processes
.645	Additive superposition of monochrome photographs, e.g. chromoscopes → 535.623; 771.319.6
.648	Two-colour processes (additive)
.66	Subtractive processes
.668	Two-colour processes (subtractive)
.67	Copying colour photographs
.68	Colour rendering. Fidelity in photographic reproduction
778.8	PHOTOGRAPHY WITH MULTIPLE OR CONTINUOUS EXPOSURES. TRICK PHOTOGRAPHY. ILLUSIONS, ETC. Cf. 778.534.6/.8
.81	Distorted photographs. Trick photography
.82	Multiple photographs of the same object (not intended for reconstitution of motion). Cf. 778.52
.85	Superimposed photographs of similar objects or persons for visualisation of common characteristics

779	COLLECTIONS OF PHOTOGRAPHS, FILMS, ETC. → 026.064 and (084.1) under specific topics Distinguish kinds of photographs or films by .03/.08 (from 77) Specify topic or interest of collection by :0/9, e.g.
:659.1	Advertisement or publicity photographs and film collections
:72	Architectural photograph or film collections

78 MUSIC

→ 246.8; 681.8; 725.81; 792 and see note under 78.089

78.0	Generalities: theory, technique, etc. ≙ 7.0, e.g.
.01	Aesthetics. Philosophy of music Cf. 781
.02	Techniques and equipment of music
.021	Procedure. Drafting. Scoring. Instrumentation
.022	Equipment. Instruments (playing, care, etc.) Cf. 681.81; 786/789
.026	Copying. Copies of scores, parts, etc.
.03	Styles. Idioms, influences ≙ 7.03, e.g.
.031	Primitive (aboriginal or folk) music
.034	Renaissance, Baroque and Rococo music
.036	Modern, contemporary music
.05	Uses, utility music, e.g. as aid to work → 778.534.4
.06	Ethical and social aspects of music
.061	Forgery. Plagiarism, etc. → 343.52
.067	Social significance. Academic(Highbrow) v. popular ("pop")
.07	Occupations connected with music ≙ 7.07, e.g.
.071	Musicians
.1	Composers
.2	Executant musicians. Conductors. Players. Virtuosos

78.072	Musicologists, music critics and historians
.073	Music lovers, concert-goers
.075	Impresarios, publishers, dealers
.078	Official encouragement and patronage
78.08	Forms of compositions. Cyclic forms. Movements. Cf. 781.5
.081	Movements, sections of a work Add .1 to .4 for 1st, 2nd, 3rd and 4th movements
.082	Symphony. Sonata
.083	Style-pieces. Genres
.1	Suite. Divertimento
.2	Variations. Prelude. Fugue
.3	Fantasia. Arabesque. Moment musical. Toccata. Humoresque
.4	Meditation. Nocturne. Serenade. Song without words. Berceuse
.5	Rhapsody. Ballade
.6	Other minor genres
.8	Transcription. Paraphrase. Potpourri. Cf. 78.088
.084	March (quick, slow, etc.). Cf. 785.13
.085	Dance (classical, modern, national). Cf. 785.16
.1	Old dances
.2	Ballroom dances
.3	Modern dances
.4	Children's dances
.5	Ballets. Ballet music
.7	National dances. Character dance
.086	Parts of dramatic works (non-vocal). Overture. Entr'acte. Finale
.087	Compositions according to instrumental or vocal characteristics
.1	for unaccompanied solo instrument, e.g. 787.1.087.1 for solo violin
.2	for accompanied solo instrument, e.g. 787.087.2:786.2 for violin with piano accompaniment
.3	for several solo instruments ≙ 785.7
.4	for one accompanying instrument, e.g. 786.2.087.4 Music for piano accompaniment
.5	Music for beginners, for practise. Exercises. Scales. Etudes Cf. 784.9

78.087.6	Vocal or choral compositions → 782/784
.61	for one voice
.611	Child's voice. Boy's voice
.612	Female voice: soprano, mezzo-soprano, contralto
.613	Male voice: tenor, baritone, bass
.62/.67	for several (2 to 7) voices ≙ 785.72/.77
.68	for large choir or chorus
.681	Children's choirs. Boys' choirs
.682	Women's choirs
.683	Men's choirs
.684	Mixed chorus
.685	Solo voice(s) with choirs
.088	Arrangements, e.g. orchestral work for piano. Cf. 78.083.8
.089	Musical works (as such). Scores. Collections If preferred separate musical works(as such)from documents about music in a parallel series by prefixing M to corresponding 78... divisions, e.g. M782 Operatic scores (instead of 782.089) M787.1 Violin works and parts (instead of 787.1.089)
.6	Scores and parts (particular works)
.8	Collected works of particular composers (one of several)
78.09	Performances. Concerts. ≙ 7.09, e.g.
.091	Performances, auditions, rehearsals, etc.
.092	Competitions, festivals, eisteddfodau
.096	Broadcast (radio) concert
781	GENERAL THEORY OF MUSIC
.1	Scientific bases: mathematical, physical, physiological and psychological theories. Musical acoustics → 534; 612.85; 159.932
.2	General (technical) theory of music
.21	Fundamentals. Musical grammar
.22	Tone. Pitch. Timbre. Tonality. Key. Chords. Intervals
.23	Nomenclature. Terminology → 001.4
.24	Musical notation. Keys. Clefs, etc. → 003.62

781.4	Harmony. Counterpoint. Melody
.41	Theory of harmony. Ground-bass. Figured bass. Modulations
.42	Theory of counterpoint. Canon. Fugue
.43	Melody. Melodic structure. Melodic line
.5	Musical form Cf. 78.08
.6	Composition. Instrumentation. Interpretation, etc.
.62	Rhythm. Time. Dynamics. Intonation
.63	Instrumentation and orchestration
.64	Transposing technique
.65	Improvisation
.66	Technique of [illegible] accompaniment
.68	Interpretation. Tempo. Expression. Phrasing, etc.
.7	National musical theories and forms, e.g.
(54):789.5	Use of bells in indian (Hindu) music
.8	Theory and forms of ancient music Use .03... and/or (4/9) and "..."
.97	Lists, indexes of musical works. Cf. 016
.972	Collections according to source
.973	Catalogues of musical works
782/785	KINDS OF MUSIC
782	Dramatic, theatre music. Opera, etc. → 792, esp. 792.5
.1	Grand opera. Music dramas
.6	Comic opera. [illegible] Operas with speech
.7	Opera buffa or bouffe
.8	Operettas. Musical plays, comedies.Musicals
.91	Pantomimes. Ballet
783	Church music. Sacred music
:282	Catholic Church music
:284	Protestant Church music
.1	Instrumental: voluntaries, etc. Cf. 786.6
.2	Liturgical: masses, litanies, anthems. Cf. 245
.3	Oratorios, passions, cantatas, etc. Cf. 784.5

783.4	Sacred antiphonies not elsewhere mentioned, e.g. of Palestrina type
.5	Plainsong, chant (Gregorian, etc.)
.6	Religious folk songs. Spirituals, Carols
.7	Evangelical, gospel songs or hymns
.8	Choir songs. Boy choristers' songs
.9	Congregational, hymns, etc.
784	Vocal and choral music (secular). Cf. 782; 783
.1	Unaccompanied (part) songs. Glees. Madrigals. Rounds
.2	Vocal music as parts of larger musical works. Recitatives
.3	Accompanied songs. Lieder. Ballads, etc.
.4	Folk songs. Traditional songs. Drinking songs. See Cries → 398.8
.5	Choral works. Secular oratorios. Cf. 783.3
.6	Community songs. Children(s songs, etc. Cf. 398.83
.66	Songs of specific groups, occupations, e.g. students' songs → 371.8; 378.18
.67	Children's (cradle, nursery) songs. Lullabies
.68	Songs for individual seasons ≙ 398.33
.69	Songs for special occasions ≙ 39
.7	Other kinds of songs
.71	National hymns or anthems. Patriotic songs
(44)	French, e.g. Marseillaise
(73)	American (U.S.A.), e.g. Stars and Stripes
.72	Comic songs. Satirical songs
.75	Exotic songs, e.g. Negro songs. Cf. 783.6
.9	Vocal exercises, practice. Cf. 78.087.5
785	Instrumental music
.1	Orchestral (and band) music
.11	Full symphony orchestra
.12	Sectional (e.g. wind or brass ensembles). For fanfares, etc.
.13	Military (band) music Cf. 788
.15	Hunt music
.16	Light orchestra (theatre, hotel, café). Dance band (jazz, swing, etc.) → 792; 793.3

785.4	Programme music. Symphonic (tone) poems
.6	Concertos, e.g.
:787.1	Violin concertos
785.7	Chamber music
.72	Duos, duets, e.g.
:786.2	Piano duets
.73	Trios, e.g.
:788.5/.8	Woodwind trios
.74	Quartets, e.g.
:786.2:787	Quartet for piano and strings
.75	Quintets, e.g.
:788	Wind quartets
.76	Sextets
.77	Septets
.78	Octets
.79	Nonets
786/789	MUSIC FOR INDIVIDUAL INSTRUMENTS → 681.816/.819
786	Keyboard instruments
.1	Harpsichord. Spinet. Cembalo. Clavichord
.2	Piano. Pianoforte
.6	Organ (pipe organ)
.7	Reed organs. Harmonium, etc.
.8	Accordion. Concertina, etc. Cf. 788.93
.9	Musical glasses (glass harmonica) Cf. 789.6
787	String instruments
.1/.4	Bow instruments. Viols, etc.
.1	Violin
.2	Viola
.3	Violoncello
.4	Double bass (contrabass) and other bow instruments

787.5/.7	Plucked instruments
.5	Harp. Lyre, etc.
.6/.7	Finger board and fretted instruments
.61	Guitar
.62	Lute
.65	Mandoline
.68	Zither
.7	Banjo, ukulele, etc.
.9	Other string instruments (with resonator body), e.g.
(47)	Balalaika

788	Wind instruments
.1/.4	Brass instruments
.1	Trumpets
.2	Trombones
.3	Cornet
.4	Horns, saxophones, bugles, tubas, etc.
.41	Horns. French horn, etc.
.42	Sax horns, baritone, euphonium, etc.
.43	Saxophones (soprano, alto, tenor, etc.)
.48	Tubas (bass, bombardon, helicon)
.5/.8	Wood-wind instruments
.5	Flutes and other reedless pipes with mouth-hole
.51	Flute. Piccolo, fife (transverse)
.52	Recorder. Flageolet
.6	Clarinets (alto, bass). Basset horn
.7	Oboe. Cor anglais (English horn). Shawm or shalm
.8	Bassoon. Contra-bassoon
.9	Other wind instruments. Alphorn, etc.
.91	Bagpipes. Alphorn, etc.
.93	Mouth organ

789 Percussion, mechanical, electrical instruments

.1 Drums. Tympani

.2 Cymbals. Castanets. Bones

.3 Triangle

.4 Tambourine

.5 Bells. Gongs. Carillons. Chimes
→ 673.5

.6 Xylophone. Celesta. Glockenspiel. Marimba, etc.
Cf. 786.9

.9 Mechanical, electric, electronic instruments: pianolas, orchestrions, etc.
Cf. 681.82

79 ENTERTAINMENT, PASTIMES. GAMES. SPORT

→ 379.82; 685.6

79.

79-05 Persons in entertainment and sport (age, sex, etc.)
≙ -05 ([illegible] Aux.I.k), but cf. 79.07

79.0 Generalities, techniques, equipment
≙ 7.0, e.g.

.02 Techniques, equipment, etc.
(Details see specifically, e.g. 792.02 and 796.02)

.05 Application, utilization, environmental problems in entertainment and sport
(Details see specifically, e.g. [illegible] 792.05)

.06 Social, ethical and organizational problems in entertainment and sport
(Details see specifically, e.g. 792.06 and 796.06)

.07 Professions, occupations in the entertainment and sports world
(Combine with .02 and other auxiliaries as required)

.071 Artists (creative, interpreting), performers, players, sportsmen

- .22 Amateurs
- .24 Professionals
- .4 Teachers. Trainers. Coaches

.072 Experts and expertise. Commentators, historians, critics, judges

.075 Commercial organization and publicity. Managers, producers, impresarios, promoters, agents and dealers

.078 Official encouragement and patronage

79.08	Entertainment, shows, sports and games according to participation, size or scale and special performing or playing arrangements (Details see at 792.08, 794.08, 796.08)
.09	Performances, contests, presentation in various media ≙ 7.09, e.g.
.091	Live performances, auditions, rehearsals, etc.
.092	Competitions. Contests. Matches. Championships. Records
.094	Filmed performances, contests, etc.
.096	Radio broadcast performances, contests, etc.
.097	Televised (TV) performances, contests, etc.
791	PUBLIC ENTERTAINMENTS AND AMUSEMENTS → 394; 688.7
x .2	(Concerts. Public musical performances) → 78.091 x
791.4	The cinema. Film as art and entertainment → 778.5
.43	Films: types or genres -1/-9 ≙ 82-1/-9, e.g.
-21	Tragedies
-22	Comedies. Farces
-24	Historical films
-252	Fairy tales
-293	Operettas. Musicals
-311.3	Adventure and Wild West films. "Westerns"
-312.4	Crime, detective and mystery films. "Thrillers"
-92	Documentaries. News reels Cf. 791.43.04
.01	Aesthetics of the film ≙ 7.01
.03	Film styles ≙ 7.03, e.g.
.032	Oriental (Japanese, Indian, etc.)
.036.7	Expressionist, surrealist films
.04	Iconography, subjects of films ≙ 7.04 (but cf. -1/-9 above), e.g.
.041	Representation of human form and activity in films
.042	Animal films
.047	Landscape and seascape films
.048	Pure pattern and line representation

791.43.05 Films according to purpose or use, e.g.

:008 Cultural films

:371.672 Educational, instructional films

:659.1 Advertisement films

.44 Film production

.02 Techniques and equipment for film production
≙ 7.02, e.g.

.022 Material, equipment, lighting, etc.

:621.32 Electrical lamps for film studios

.024 Film titles. Captions, etc.

.026 Film copies

.07 Occupations concerned with film production

.071 Film makers. Members of film company

.1 Film directors. Film producers

.2 Film actors. Film stars, extras

.5 Cameramen. Musical directors, etc.

.075 Film agenst, distributors

.45 Film theatre. Cinema showing and shows

.073 Film public and audiences. Cinema-goers

791.5 Waxworks, puppet and similar shows
→ 792.9

(421) Madam Tussaud's (waxworks)

791.6 Public festivities and displays
→ 394.2; 688.75/.77

.61 Fairs. Kermis
→ 394.6

.62 Ceremonies. Coronations. Processions. Pageants. Commemorations
→ 394.4

.63 Illuminations. Fireworks. Torch-light processions

.65 Carnivals. Masquerades
→ 394.25

.66 National and Bank Holiday festivities

791.7 Funfairs. Swings. Merry-go-rounds. Rundabouts
→ 688.77; 711.558; 725

791.8	Menageries. Circuses. Bull-fights, etc. → 636; 725.826; 792.7
.82	Menageries
.83	Circuses → 792.73
.86	Bull-fighting, bear-baiting, cock-fighting → 797
792	THEATRE. STAGECRAFT. DRAMATIC PERFORMANCES → 398.5; 725.82; 782; 82-2
.0	Generalities: techniques, occupations, performances, etc.
.01	Theory and aesthetics of theatre and stage
.02	Theatrical production technique. Staging. Stagecraft and management
.021	Stage design, setting and décor generally
.022	Mechanical equipment and services: stage machinery, lighting and sound equipment, theatre workshops
.023	Stage equipment or properties: scenery, furniture, requisites → 684.5; 688.74; 75.054
.024	Performers' equipment: theatre costumes, make-up, etc.
.026	Script, libretto and score: treatment for stage production, casting (of roles), script reading, analysis, assessment and adjustments
.027	Artistic direction and continuity. Prompting, etc.
.8	Compering, narrating and similar techniques
.028	Acting, performing: technique, interpretation of roles or parts
.2	Actor-audience contact: personality, audience psychology
.3	Technique of acting, speech, movement, gesture. Cf. 82.085
.5	Roles according to importance. Leads, supports, "supers"
.6	Type roles or parts: heroic, tragic, comic, etc.
.03	Theatre according to period or style ≙ 7.03, e.g.
.032.6	Classical Greek theatre
.036	Modern and contemporary. Expressionist, surrealist, etc.
* .04	(Theatre equipment, properties, scenery) → 792.022/.024 *
.05	Theatres and stages (types, layout) → 725.82
.051	Outdoor, open-air and mobile theatres
.052	Theatre premises (indoor): exit-entry, box-offices, foyers, etc.
.053	Large theatres: auditorium, stage layout, proscenium, etc.
.054	Small studio or workshop theatres, experimental theatres

792.055	Types of stage or arena: miniature booth, rostrum, etc.
.3	Early historical types of stage (e.g. Hans-Sachs, Shakespeare)
.4	Open (round) stage. Arena. Theatre in the round
.6	Conventional modern stage (with proscenium, wings, backcloth)
.7	Quick-transformation stages: revolving or drop, simultaneous (divided)
.06	Ethical and social aspects of theatre ≙ 7.06, e.g.
.067	Cultural value, social significance
.07	Theatrical profession and associated occupations and activities Cf. 792.027/.028 and ≙ 7.07, e.g.
.071	Professional stage and theatre artists Cf. 792.076
.072	Theatre expertise: Critics, commentators, historians, etc.
.073	Theatre public and audiences. Theatregoers. Spectators
.075	Theatrical management, organization and publicity. Managers, producers, impressarios, promoters and agents
.077	Amateur theatricals (and players)
.078	Sponsorship, patronage, financial support, etc. Local, national, private by (1-2/-7) Aux.I.e
.08	Theatre pieces, plays or shows according to participation, size or scale
.081	Solo. Monologue. Pas seul, etc.
.082	Duo. Dialogue. Pas de deux
.085	Full-cast, full-scale, e.g. "spectaculars"
.086	Reduced-scale. Intimate pieces
.088	Short pieces. One-act plays or pieces
.09	Performances, rehearsals. Presentation in various media
.091	Live performances, rehearsals, premières, tours
.096	Radio theatre, plays, etc.
.097	Television (TV) theatre
792.2	Speech drama. Plays → 82-2 (literature)
.21	Tragedies
.22	Comedies, farces, etc.
.23	Melodramas. Thrillers

792.24	Representational plays ≙ 7.04, e.g.
.246	Religious, nativity, miracle, mystery and passion plays
.25	Sketches, fantasies, improvisations, pieces for special occasions
.28	Purpose or propaganda pieces. Didactic plays or pieces
792.5	Musical productions. Operas. Operettas. Musical plays → 782
.54	Opera and music drama (sung with little speech)
.56	Operettas and musical comedies (sung, but [illegible] largely spoken)
.57	"Musicals" (with dance, spectacle, etc.). Cf. 792.75
792.7	Variety, music hall and cabaret. Revues. Pantomimes
.085	Full-scale shows. "Spectaculars"
.086	Intimate shows (e.g. cabaret)
.73	Variety, music hall and cabaret. Cf. 791.83
.732	Comic turns, clowns and clowning
.733	Aural illusion. Ventriloquism
.734	Visual illusion. Magic, conjuring, sleight-of-hand. Cf. 794.44
.735	Feats of dexterity. Juggling, knifethrowing, etc.
.736	Feats of agility, strength and endurance
.737	"Sensational", daring, trick riding acts
.738	Performing animal acts, e.g. :636.7 Performing dogs
.75	Revues (satirical, topical, etc.)
.78	Pantomimes
792.8	Ballet and stage dance productions Cf. 793.3
.02	Staging techniques. Scenery. Choreography
792.9	Special kinds of theatre. "Théâtre total". "Son et lumière"
.96	Shadow. Silhouette theatre. Shadowplays
.97	Puppet and marionette theatre. Punch and judy shows

793	SOCIAL ENTERTAINMENTS AND PASTIMES. DANCING, ETC. → 394.3
x .1	(Amateur theatricals) → 792.077 x
793.2	Domestic festivities, e.g. Christmas, New Year, wedding and birthday celebrations, parties, etc.
793.3	Dancing and dances → 29131; 78.085; 785.16; 792.8
.31	Folk, country, national dances
.32	Artistic dances. Character dances
.33	Ballroom dancing (for couples)
.34	Dances for groups. Pattern, square dancing
.38	Balls
.386	Fancy-dress balls, Costume balls
793.4/.7	Party and parlour games (chiefly indoor)
.4	Active games. Blind man's bluff. Hide-and-seek, etc.
.5	Forfeit games
.7	Quiz games. Guessing, mm memory, round games. Riddles, etc.
793.8	Scientific recreations. Parlour magic → 792.73
794	BOARD AND TABLE GAMES of thought, skill and chance → 685.8
.01	Theory. Cf. 518.9/519
.02	Practical play and equipment → 685.8
.05	Means of fighting: strategy and tactics. Moves. Analysis
.08	Participation combinations: solo, duo, teams, etc.
.088	Special playing arrangements, e.g. by correspondence, blind play, simultaneous games
.09	Competitions, contests, matches, etc. ≙ 7.09, e.g.
.091	Practice and friendly games
.092	Individual contests, matches, tournaments, drives
.097	Television (TV) presentation

794.1/.3	Board games. Chess, draughts (checkers), etc.
.1	Chess
.12	Chess game as a whole. Phases: opening, middle and end games
.14	Chess compositions and studies. Mate problems, etc.
.2	Minor board games not dependent on chance
.24	Draughts (checkers), halma and other games played on a chequered board Cf. 794.3
.25	Games with pieces and board of special design
.3	Board or table games with pieces or counters and with element of chance, e.g. dice-games(backgammon, ludo, etc.) Cf. 794.9
.36	Games with random-selected or dealt-out pieces bearing marks, e.g. Dominoes, Mah-Jong
794.4	Card games. Bridge, etc.
.41	Bridge and similar games. Whist. Auction, contract bridge
.42	Card-combination games. Poker. Baccarat. Vingt-et-un, etc.
.43	Card-pattern, sequence and matching games. Patience, etc.
.44	Card tricks. Cf. 792.734
.5	Pattern games or puzzles requiring patience or dexterity, e.g. Solitaire, Tig-saws
* .6	(Dominoes. Mah-Jong) → 794.36 *
794.7	Table ball games of skill and judgment
.75	Billiards and similar ball-and-cue games. Snooker, etc.
.78	Table tennis, ping-pong
794.8	Minor aiming games, children's miniature games
.82	Games with objects aimed along, or at, a board, e.g. shuffle-or shove-board, quoits, darts
.83	Table games imitating sports, e.g. table football → 794.78; 796.3
.85	Pin-table games, e.g. pin-table billiards and bagatelle Cf. 794.75

794.9	Games of pure chance. Cf.794.3	
.91	Dice	
.92	Roulette	
.93	Lotto, bingo and similar random choice games	
* 795	(Games of chance) → 794.9	*
* 795.9	(Card games) → 794.4	*
796	SPORT. GAMES. GYMNASTICS. ATHLETICS → 362.83; 371.7; 379.8; 685; 794.7	
.01	Use of sport and recreation in general	
.011	Philosophy of physical education and sport	
.015	Theory of exercise(s) and gymnastics	
.016	Theory of sport(s)	
.02	Technique and procedures in sport	
.021	Procedure and technique of play or contest	
.022	Equipment apparatus. Accessories → 685.3; 685.6/.7	
.7	Special clothing	
.025	Care and maintenance of sports equipment. Accidents, etc.	
.06	Organization, administration and social aspects	
.063	Rules and codes of play	
.067	Social aspect, e.g. sport for the people	
.07	Occupations connected with sport(s) ≙ 7.07, e.g.	
.071	Sportsmen, athletes, etc.	
.2	Players. Athletes	
.22	Amateurs	
.24	Professionals	
.4	Sports and physical training. Instructors. Coaches. Guides, etc. → 371.7; 613; 796.091.2	
.072	Sports expertise. Critics, commentators, etc.	
.3	Sports critics, commentators	
.4	Referees, judges, time-keepers, juries	
.073	Sport-lovers. Spectators, supporters	
.075	Organizers of sporting events. Promoters. Managers, agents, etc.	
.078	Official encouragement and patronage of sport	

796.08	Participation. Combinations: teams, etc.
.081	Solo (no opponent)
.082	Duo (two single opponents)
.083	Three or more individual participants
.084	Foursomes, two-a-side
.085	Teams. Normal team or group
.086	Reduced participation, e.g. 796.333.086 Seven-a-side Rugby
.09	Performances. Contests. Presentation in various media. Cf.7.09
.091	Performance. Exercise, practice and training
.2	Training and development
.21	Interval or periodic training
.22	Circuit, track or field training
.23	Strength training
.24	Speed training
.25	Endurance and stamina training
.26	Supplementary, special training
.27	Compensatory training
.28	Exercises: instruction, courses, series
.092	Contests, races, matches, rallies, trials and other sporting events. Championships and records
(100)	International contests, e.g. Olympic games
.2	Records. National and international records
.22	Duration of the competition, e.g.
"414-24"	24-hour (round-the-clock races)
.23	Distance, e.g.
	796.422.12.092.23(181m400) 400-metre running races
.24	Altitude or depth, e.g.
	797.561.092.24(181m4000) 4000-metre parachute jumps
.3/.7	Contests, races, championships and records according to site or route characteristics
.3	with revictualling en route
.4	Track contests. Races, championships, etc. Cf. 796.42
.5	Road races, trials, championships, etc.

796.092.6	Cross-country contests, rallies, championships, etc.
.7	Great classical races, rallies, etc. (national or international), e.g. Tour de France
.9	Multi-sport, multi-exercise contests, e.g. pentathlon, decathlon
.096	Radio presentation
.097	Television presentation
796.1	Open-air play, fun and games. Children's games. Beach or sand, ring and running games → 379.8; 688.72; 712.25
.15	Flying toy kites or balloons, model aircraft, etc. Cf. 379.826; 797.5
796.2	Action, motion, agility, dexterity games with accessories
.21	Skipping (rope), hoop, swing and see-saw
.23	Marbles
.26	Shuttlecock games Cf. 796.344
.27	Croquet. Pall mall
.28	Bowls. Skittles. Bowling."Boule", "Boccia", etc.
796.3	BALL GAMES. THROWING GAMES → 685.63; 797.25
796.31/.32	Hand-thrown or hand-struck ball games
.31	Hand-thrown, small-ball games. Bouncing games. Wall-ball, camp-ball, indian-ball. Fives, etc. Cf. 796.346
.32	Hand-thrown or-struck, large-ball games
.322	Hand ball
.323	Basket-ball. Netball. "Korfbal", etc.
796.33	Football(association, rugby, etc.)
.332	Association football (soccer)
.333	Rugby (and American) football
.3	Rugby Union
.4	Rugby League
.7	American football
.334	Pushball, e.g. Eton wall game

796.34	Racket games. Tennis, etc.
.342	Lawn tennis. Cf. 794.78
.344	Badminton
.345	Pelota
.346	Squash and rackets
796.35	Club, stick or bat games. Cf. 796.27
.352	Golf
.353	Polo
.355	Hockey. Field-hockey. Cf. 796.966
.356	Lacrosse
.357	Baseball
.358	Cricket
* .38	(Other aiming or throwing games) → 796.433; 799.32 *
796.4	GYMNASTICS. ATHLETICS → 371.7; 615.825
796.41	Gymnastics. Rhythmic exercises. Acrobatics
(A/Z)	Named schools, e.g.(Herbert)
.411	Free exercises. Associated exercises
.412	Rhythmical exercises → 793.3
.413	Balance exercises (with or without apparatus): tight-rope, pyramids, etc.
.414	Fixed-support exercises: horizontal bar, parallel bars, horse Cf. 796.418
.415	Weight-lifting and similar strength exercises
.416	Exercises on the trapeze, rings, ropes, ladders, etc.
.3	Climbing and hanging exercises, rope or ladder
.417	Acrobatic exercises: contortion, trampoline, etc.
.418	Vaulting and skipping exercises

796.42 Athletics in general. Track events. Cf.796.43
For distances use (181) as shown under 796.092.2

.421 Walking. Walking races. Cf. 796.51
(181km20) 20-kilometre walk or walking race
.422 Running
  .1 Flat races
  .12 Short-distance. Sprint (less than 1000m), e.g.
    (181m100) 100-metre sprint
  .14 Medium-distance running (1000 up to 10.000m), e.g.
    (181m1500) 1500-metre race
  .16 Long-distance running (10.000m or 10km and more), e.g.
    (181km42) Marathon
  .2 Obstacle races. Hurdles and steeplechase
  .21 Hurdles (up to 1000m), e.g.
    (181m80) 80-metre hurdle race
  .22 Steeplechase (over 1000m)
  .3 Cross-country running, runs or races
.425 Relay races
796.43 Field events (jumping, throwing)
.431 Jumping and jumps
  .1 High jump
  .2 Long jump. Triple jump
  .25 Hop, step and jump (triple jump)
  .3 Combined. High and long jump
  .4 Pole vault
.433 Throwing. Distance-throwing
  .1 Weight or shot. Putting the weight or shot
  .2 Javelin. Throwing the javelin
  .3 Discus. Throwing the discus
  .4 Hammer. Throwing the hammer
  .7 Other objects, e.g. tossing the caber (pole)
x .44/.47 (Gymnastics and acrobatic exercises) → 796.41 x
x .48 (Trick riding, equestrianism) → 798.27;791.83;792.737 x
x .49 (Clowning, performing animals, etc.)→ 791.83;792.732;792.738 x

796.5 TOURING. RAMBLING. CLIMBING. CAMPING. [illegible]
→ 379.85; 685.5

.51 Rambling. Walking. Hiking
.52 Climbing. [illegible] Mountaineering
.54 Camping. Cf. 379.837
.56 Direction-finding (as sport)

796.6 Wheel sports. Cycling. Roller skating
→ 629.118; 796.7

.61 Cycling. Cycle racing. Cf. 379.853
.611 Track racing and races, e.g.
"42-06" 6-day races
.612 Road racing and races, e.g.
.092.7(44) Tour de France
.62 Aerobatic and figure caycling
.69 Roller skating
≙ 796.91 and → 685.362

796.7 Motor vehicle sports. Motoring. Motor cycling
→ 629.11

.092 Rallies, trials, records, etc.
≙ [illegible] 79.092
.71 Motoring. Automobile or motor-car sports
.716 Automobile or motor racing
.72 Motor cycling
.726 Motor-cycle racing

796.8 COMBAT AND DEFENSE SPORTS
→ 685.68

796.81 Wrestling. Free-style wrestling

.82 Olympic (Greco-Roman) wrestling

796.83 Boxing

.84 Foot boxing (savate)
.85 Stick, baton (staff)

796.86	Fencing. Foil. Epée. Sabre
	→ 394.8
.87	Military training sports: crawling, cover, obstacles, etc.
.891	Judo. Jiu-Jitsu. Karaté, etc.
796.9	WINTER SPORTS. ICE AND SNOW SPORTS
	For distances, use (181) and → 379.847; 685.65
.91	Ice skating(and ice yachting)
	Cf. 796.69; 796.96/.97
.912	Figure skating
.914	Speed skating, e.g.
(181m1500)	1500-metre course
.918	Ice yachting. Ice sailing
	Cf. 797.14
.92	Skiing
.921	Snow-shoeing
.922	Nordic skiing. Endurance ski runs, e.g.
(181km30)	30-kilometre ski run
.7	Combined (Nordic) course (15-km plus jump)
.925	Ski jumping
.926	Alpine skiing. Downhill trial. Slalom race. Ski turns
.2	Downhill
.4	Slalom
.7	Combined (Alpine) course
.928	Ski-patrols. Long-distance test (25 km)
.929	Dry skiing (sand, plastic "snow")
.93	Ski-Jöring or -lobing (horse-drawn)
.94/.95	Sleighing. Bobsleighing, tobogganing
.94	Sleighing. Sledging
.95	Bobsleighing. Tobogganing (use .08... for 2-, 4-man, etc.)

796.96/.97	Ice games and other sport on ice
.96	Ice games. Ice hockey, etc.
.962	Curling (throwing for distance)
.964	Ice pushball. Ice skittles
.966	Ice hockey Cf. 796.355
.97	Various games or sports on ice, e.g. cycling, motoring, horse-racing on ice
797	WATER (AND AIR) SPORTS → 379.846; 379.857
.0	Theory, techniques, organization, etc. ≙ 79.0 and 796.0..., e.g.
.02	Technique, equipment, dress, etc.
.08	Participation. Crews. Teams, etc. ≙ 796.08, but see 797.123.1/.2
.082	Pairs or doubles (two persons)
.085	Teams, e.g. for water polo
.09	Performance. Presentation in various media ≙ 796.09, e.g.
.092	Contests. Races, regattas, championships, etc.
797.1	Nautical sports. Boating → 379.857; 527;629.12
.092	Regattas
.11	Pleasure-boat cruising. Cf. 379.857
.12	Boating (without sail). Canoeing. Rowing
.122	Canoeing. Paddling
.2	Kayak (Eskimo) style
.3	Canadian style
.4	Folding canoe
.5	Paddling
.123	Rowing. Sculling
.1	Sculling. Sculls
.11	Single sculls
.12	Double sculls

797.123.2 Rowing (oars): pairs, fours, etc.
    .22 Pairs
    .24 Fours
    .28 Eights

.14 Sailing. Yachting and yacht-racing
.142 Small-boat, dinghy sailing (centre-board, lea-board)
.144 Yacht sailing (keel boats)
.15 Motor-boat sport. Motor cruising
.152 Outboard
.17 Minor nautical sports
.175 Water-cycling. Paddle-cycles, etc.
.176 Water-skiing
.178 Surf-riding
.18 Nautical games, e.g. canoe-polo, greasy pole

797.2 Swimming. Diving. Aquatic sports and games
→ 685.73
.21 Swimming without apparatus
Cf. 797.22
.212 Methods of swimming: breast, back, crawl, etc.
.213 Swimming races, contests : styles, strokes
    .1 Free style, e.g.
    (181m100) 100-m Free style
    .2 Back stroke
    .3 Breast stroke
    .4 Butterfly stroke
    .6 Relay swimming, e.g.
    (181m200) 4 x 200 metre Free style
    .7 Mixed-style relay swimming
.214 Life-saving, rescue swimming
.215 Under-water swimming
.217 Artistic swimming

797.22	Swimming with apparatus. Skin-diving
.25	Water games. Water polo
.26	Diving
.262	Spring-board diving
.264	High-diving
797.5	Air sports: flying, gliding, parachuting → 379.858; 629.7; 796.15
.54	Ballooning (as sport)
.55	Flying heavier-than-air aircraft
.551	Gliding, flying gliders
.555	Flying aeroplanes: aerobatics, races
.556	Flying rotor-craft, helicopters
.56	Sport using wingless heavier-than-air apparatus
.561	Parachuting. Parachute-jumping
798	EQUESTRIAN SPORT. ANIMAL RACING → 636.08; 685.1
.0	Generalities, techniques, etc. ≙ 79.0 and 796.0, e.g.
.02	Technique, equipment, dress, etc.
.091	Training, practice, exercise
.092	Contests, races, rides, hunts, etc.
798.2	Horse-riding, jumping, etc.
.22	Dressage; saddled horse, harness
.23	Horsemanship. Equitation
.24	Riding school exercises
.25	Equestrian games. Jousting. Cross-country and hunt riding → 799.2
.26	Horse-jumping and jumps. Hunt jumping
.27	Aerobatic and circus equitation → 791.83; 792.737

798.4	Horse racing
.091	Training and exercising
.42	Flat racing
.45	Steeplechase
.6	Team and trap-driving, trotting, etc.
.66	Team races, horse riding contests, festivals
798.8	Dog racing. Greyhounds, whippets
	→ 636.7
.9	Racing other animals, e.g.
:636.596	Pigeon racing
799	FISHING, HUNTING AND SHOOTING (AS SPORTS)
	→ 639
799.1	Fishing. Angling
	Divide by :639.2 and → 597
.0	Generalities, techniques, etc.
	≙ 79.09 and 796.09
.01	Theory and philosophy
.02	Techniques, materials, equipment
.06	Organization and social aspects
.092	Contests, competitions, matches
.11	Fresh water fishing (pond, lake, river)
.12	Line fishing or angling
.13	Net fishing (river)
.15	Inshore (coast-line) fishing, e.g. shrimp, crab and lobster
.16	Sea fishing (open or high sea)
799.2	Hunting and (game) shooting. Cf. 799.3
	Divide by :639.1
:639.1.081.2	Hunting with weapons. Shooting. Stalking.
:639.1.081.8	Chase. Coursing
:639.112	Fur (rabbit, hares, etc)
:639.12	Feather (partridge, pheasant, etc.)

799.3	Shooting (aiming sport). Target shooting. Archery. Cf. 799.2
.31	Shooting with firearms
.311	Shooting with sporting weapons, pistols and small-bore rifles
.312	Shooting with hunting (large-bore) firearms, shot-guns. Cf. 799.2
.5	Pigeon shooting. Clay pigeon
.313	Shooting with military weapons or firearms
.32	Shooting or aimingwith other weapons. Archery Cf. 796.433
.322	Archery: bow-and-arrows (crossbow, longbow), etc.
.324	Hand thrown missiles. Javelin. Dart. Boomerang

8 LANGUAGE(S). LINGUISTICS AND LITERATURE

80 LINGUISTICS. PHILOLOGY

800	GENERAL LANGUAGE QUESTIONS
	For a specific language or language group use :802/809 or auxiliaries under 802/809 (alternative method → 82.07)
:37	Teaching and learning of languages → 372.46; 372.88
800.1	Philosophy, origin, development of language
.2	Original forms and periods (phases of development) of languages
.21	Original forms
.22	Old or early periods
.23	Middle periods
.24	Modern or new periods
.6	Usage and purity of language(s)
.61	Correct (standard idiomatic) usage and misuse of spoken and written forms
.62	Purity of language. Cf. 801.316.3
800.8	General grouping(s) and classification of languages → 801.5
.81	Primitive languages. Languages of primitive peoples
.82	Languages without extant literature
.83	Modern languages (so-called). Living languages
.84	Dead languages (classical languages) → 807; 87
.85	Languages with literature extant
.852	Written languages
.853	Literary languages
.855	Colloquial (spoken) languages
.87	Dialects, regional and local vernaculars. Dialectology → 802/809
.879	Dialect geography. Language and word atlases
.88	Mixed, hybrid (conventional) languages, contact vernaculars and jargons, e.g. pidgin-English, Papiamento → 802/809

800.89	Artificial (planned) languages. World auxiliaries. Interlanguages → 802/809-089
.891	Volapuk (Schleyer)
.892	Esperanto (Zamenhof)
.894	Systems derived from Volapuk or Esperanto, e.g. Ido
.896	Interlingua (Occidental)
.897	Interlingua
.91	Sign languages. [illegible] Communication by visual and aural signals other than written or spoken words → 003.31; 800.95
.93	Special language strata. Idiom. Parlance. Slangs. Jargons
:34	Legal language or parlance
.931	Language strata conditioned by social status
.1	Upper strata: cultured, educated parlance
.2	Lower strata: common, popular, familiar parlance → 800.855
.4	Vulgar, uneducated parlance or slang
.6	Polite, refined language of caste, court
.932	Sex and age-group strata, slangs or jargons, e.g.
-053.6	Teen-age jargon or slang
.5	Infants' prattle, mothers' or nurses' baby talk
.933	Secret languages, jargons, cants, e.g. thieves' cant or slang
.934	Occupational slangs, e.g.
:355.11	Soldiers' slang
:378.18	Students' slang
.935	Professional, technical jargons, e.g.
:61	Medical jargon
:62	Technological jargon
.95	Conventional mime and gesture language Cf.800.91; 82.085.3
.951	Facial expression
.952	Gesture language

801 GENERAL LINGUISTICS AND PHILOLOGY

For a specific language or language group
use :802/809 or auxiliaries under 802/809
(alternative method → 82.07)

801.1 Ortography. Spelling

.11 Alphabet(in general). Cf. 003

.115 Relations between speech and writing. Cf. 003.036

.12 Vowel and diphthong representation

.13 Consonant representation

.14 Systems of orthography. Phonetic orthography. Spelling reform

.15 Pronunciation
Cf. 801.4; 82.085.1

.18 Abbreviations
Cf. 003.083; 651.932

.19 Punctuation marks

801.2 Parts of speech

→ 159.946.3; 801.541.4; 801.563

.21 Articles. Definite and indefinite

.22 Nouns or substantives

.23 Adjectives

.24 Pronouns

.25 Verbs and verb forms

.26 Numerals: cardinals, ordinals, etc.

.27 Adverbs

.28 Conjunctions, prepositions and particles
Cf. 801.316.5

.29 Word categories of non-flexional (agglutinative, isolating) languages

801.3 Lexicology, vocabulary, word and name research. Lexicography

.31 Word grouping by meaning and use. Names, idioms, etc.

.311 Geographical-topographical names: places, localities, streets, waters, areas, countries, etc.
Details by (2)Aux.I.e

.312 Names in nature: plants, animals, rocks, winds, clouds, stars, planets, etc.
Details by :55/59

801.313	Names of persons → 392.91; 929
.1	Forenames (Christian, etc.)
.2	Surnames, familynames
.314	Words related in form, meaning and stem
.1	Synonyms
.2	Homonyms
.3	Antonyms
.4	Stem- or root-related words
.316	Various categories of words
.1	Neologisms
.2	Archaisms
.3	Foreign words, borrowed or loan words
.4	Technical nad other special subject words
.5	Exclamatory words, oaths, swear words, etc. Cf. 801.28
.6	Fashionable (mode) words, clichés, slogan words, etc.
.318	Idioms, peculiar expressions
.32	Word presentation and arrangements (in dictionaries, encyclopaedias)
.321	Point of view or standpoint: explanatory, interpretative, etc.
.19	Illustrative: illustrated dictionaries
.322	Word order
.1	Alphabetical order
.2	Word-stem or root order
.3	Concept order
.323	Number of languages (in dictionaries, etc.)
.1	One-language dictionaries
.2	Bilingual dictionaries
.3	Trilingual dictionaries
.9	Multilingual, polyglot dictionaries
801.4	Phonetics. Speech sounds: theory, production, changes → 801.1; 801.6; 82.085.1
.41	Analysis and properties of vocal sound. Cf. 801.1; 801.6; 82.085.1
.42	Phonation, articulation, utterance. Cf. 612.78

801.44	Speech sounds, vowels, consonants. Cf. 801.115
.441	Vowels (sonants). Diphthongs
.442	Consonants
.45	Sounds according to articulation position (tongue, lips) : gutturals, palatals, dentals, labials, nasals, etc.
.46	Phonetic (sound) changes, mutations and laws, e.g. Grimm's law
.47	Syllables and syllabi(fi)cation. Haplology, ellipsis, etc.
.48	Word cohesion, euphony, accent(uation), tone
.49	Phrase and sentence modulation. Rhythm. Intonation. Cf. 801.561
801.5	Grammar
.01	Inflexional languages
.02	Agglutinative languages
.03	Isolating languages
.52	Comparative grammar
.53	Historical grammar (and history of individual languages)
.54	Etymology and semantics. Word formation, meaning and development) → 801.3
.55	Morphology, accidence. Word forms and (in)flexions
.551	Declension
.552	Conjugation
.553	Gender: masculine, feminine and neuter
.554	Number: singular, plural
.555	Case: nominative, genitive, dative, accusative, ablative
.556	Comparison: comparatives and superlatives
.557	Persons: first, second and third
.558	Voice and other genera: active, passive, reflexive, etc.
.559	Tense and mood
.1	Tense: present, past, future, etc.
.3	Mood: indicative, imperative, subjunctive, etc.
.56	Syntax. Word order and arrangement. Sentences. Constructions
.561	Sentences generally. Rhythm and modulation. Clauses Cf. 801.61
.2	Rhythm. Stress. Intonation. Modulation Cf. 801.49
.3	Simple clauses (noun and verb): subject, predicate, copula
.4	Clause complements: object, attributes (noun, adjective)
.5	Incomplete clauses

801.561.6	Types of sentence: affirmative, interrogative, vocative
.7	Compound clauses. Sentence (with co-ordinate and subordinate clauses). Parataxis, hypotaxis and ellipsis
.8	Phrases: word grouping and groups, types and elements of phrases
.562	Construction and phrasing of sentences and clauses
.563	Syntactic role of different parts of speech, word categories and grammatical forms. Cf. 801.2/.3; 801.55
.564	Agreement of different parts of sentence. Grammatical congruence
801.6	Prosody: metre, rhythm, rhyme and verse pattern
.61	Versification (generalities): rhythm, euphony, etc.
.611	Quantity
.612	Stress, accent (word and phrase)
.613	Rhythm. Verse rhythm
.614	Verse melody
.615	Verse harmony
.63	Metre. Metrical measures, feet
.631	Measures, feet in general. Rise and fall. Pauses, enjambment, hiatus
.1	Rise and fall. Arsis and thesis
.2	Pauses. Caesura
.4	Hiatus
.5	Prosodic (poetic) licence: contraction, elision, etc.
.6	Verse endings, catalexis, etc.
.632	Alliteration and assonance → 801.66
.633	Disyllabic feet: iambus, trochee, spondee, etc.
.634	Trisyllabic feet: anapaest, dactyl, tribrach, etc.
.635	Polysyllabic feet
.65	Verse line and syllable patterns
.651	Rhythmic measures, feet: di-, tri-, tetra-meters, etc.
.653	Stress or accent (arsis)
.654	Metrical quantity: classical hexameters, pentameters, iambic trimeters, etc.
.655	Number of syllables
.3	Alexandrines (12-syllable)
.5	Blank verse
.7	Free verse
.656	Alternating, combined patterns

801.66	Rhyme. Cf. 801.632; 82-1
.662	Degree, extent of rhyme: mono-, di- and trisyllabic rhymes
.663	Linguistic-grammatical categorization: true, broken, split rhyme
.664	Position of rhyme(s) in the line: end, middle, beginning
.665	Rhyme plan or scheme. Rhyme pattern (of the stanza)
.67	Stanzas, strophes, couplets or verses (of a poem)
.671	Generalities on stanzas, strophe and antistrophe
.5	Interconnexion and links. Refrain, envoi, etc.
.672	Classical strophes
.673	Germanic, Nordic and English stanza or verse forms
.675	Romance stanza or verse forms. Quatrain, terza rima, etc.
.676	Slavonic and other Western forms
.677	Oriental verse forms (Indo-European and Semitic)
.1	Indic forms
.3	Persian forms
.6	Arabic forms
.678	Other Asian and African verse forms
.679	Stanzas according to number of verse lines
.2/.9	Couplets, triplets... up to nine- or more lines
801.7	Auxiliary sciences and studies of philology
:003	Inscriptions and scripts as aids
:930.27	Epigraphy and palaeography
.73	Hermeneutics. Text criticism, interpretation and explanation
.733	Exegesis
801.8	Sources of linguistics and philology. Collections of texts
.81	Oral or verbal sources, mainly popular, e.g.
:398.21	Folk tales
.82	Written sources, literary texts, e.g.
:83-23Schiller	Schiller's plays
.83	Mixed sources

802/809	SPECIAL LINGUISTICS. PHILOLOGY OF INDIVIDUAL LANGUAGES
	Numbers for individual languages parallel with -2/-9 (Aux.I.e), may be extended by adding :800.../801 or the following special auxiliaries derived from 800 and 801 (Alternative method → 82.07)
-0	General language problems: form, usage, etc. ≙ 800, e.g.
-02	Old, middle, modern forms ≙ 800.2
-06	Usage and purity. Correct use and misuse
-08/-09	Kinds, divisions, variants, etc. ≙ 800.8/.9
-085	Written, literary, colloquial (idiomatic) form
-087	Dialects, local vernaculars
-088	Hybrid forms, contact vernaculars, e.g. 803.0-088 Yiddish
-089	Planned, artificial forms, e.g. 802.0-089 Basic English
-093	Special idiom or parlance (slangs, jargons, cants)
-1/-8	Philology, linguistic studies ≙ 801.1/.8, e.g.
-1	Orthography, spelling
-3	Lexicology, vocabulary. Word studies, etc.
-4	Phonetics, speech sounds and changes
-5	Grammar, semantics
-6	Prosody, metre, rhyme, etc.
-8	Sources for linguistic study
802	WESTERN LANGUAGES (IN GENERAL)
802.0	English
-022	Old English. Anglo-Saxon
-023	Middle English (Chaucer onwards)
-024	Modern English (Shakespeare onwards)
-085	Written, literary, colloquial (idiomatic) English
-087	English dialects
-093	Special idioms (English). Slang, etc. ≙ 800.93, e.g.
.14	Vulgar, uneducated parlance, e.g. (London) Cockney

803	Germanic languages
-022	Old Germanic
803.0	German. High (standard) German. (Hochdeutsch)
-088	Yiddish
-093.3	Rotwelsch
.01	High German (regional) dialects
.011	Upper (South) German. Alemannic. Bavarian
.012	Middle German. Frankish. Thuringian. "Obersächsisch"
.1	Low (North) German
.111	Low Saxon (Niedersächsisch). Wesphalian
.123	New low German (Neuniederdeutsch, Plattdeutsch)
.91	West Germahic languages
.92	Frisian
.93	Dutch and its various forms
.931	Dutch. Netherlands Dutch
.932	Flemish
.936	Afrikaans
.95	North Germanic (Nordic) languages
.951	West Nordic languages
.952	East Nordic languages
.958	Faroese
.959	Icelandic
.96	Norwegian
.97	Swedish
.98	Danish
.99	East Germanic (Gothic) languages
804	Romance (Neo-Latin) languages in general
804.0	French
-02	Forms, periods, phases ≙ 800.2
-087	Local vernaculars. Patois
-093	Special idioms (French), slang, argot, etc.

804.01	French regional dialects
.011	North French dialect
.012	Franco-Provencal, Middle Rhône dialect (S.E. France)
.013	French dialects outside France, e.g.
(494)	French dialects of Switzerland
(71)	Canadian French
.90	Provençal
.99	Catalan
805.0	Italian
-02	Forms, periods, phases ≙ 800.2
-08/-09	Variants, dialects, idioms, slangs ≙ 800.8/.9
805.90	Roumanian
.99	Rhaeto-Romanic, Ladin, Romansch. Friulic
806	Iberic languages
806.0	Spanish
-02	Forms, periods, phases ≙ 800.2
-08/-09	Variants, local dialects, idioms, slangs ≙ 800.8/.9
806.90	Portuguese
.99	Galician
807	Classical languages (in general)
807.1	Latin Classical latin
.2	Italy dialects: Umbrian, Oscan, Samnite
.3	Latin at different stages of development
.31	Ancient (pre-classical) Latin
.33	Middle (Mediaeval) Latin
.34	Modern Latin
.35	Modern Latin of natural sciences systematics from Linnaeus up to the present
807.5	Greek. Classical Greek
.6	Grecian dialects: Ionic, Attic, etc.
.7	Greek at different stages of development
.73	Mediaeval (Byzantine) Greek
.74	Modern Greek (Romaic)

808	**Slavonic and Baltic languages**
808.1	Slavonic languages (in general)
.101	Old Church Slavonic
.2	Russian
.26	Belorussian (White Russian)
.3	Ukrainian
.4	Polish
.50	Czech
.54	Slovakian
.61	Serbian. Serbo-Croat
.62	Croatian
.63	Slovene
.66	Macedonian
.67	Bulgarian
.7	Other Slavonic languages, e.g. Sorbic, Wendic
808.8	Baltic languages Cf. 809.454
.82	Lithuanian
.83	Lettish
809	ORIENTAL, AFRICAN AND OTHER LANGUAGES
809.1	**Indo-European (Indo-Germanic, Aryan) languages** (except those Western languages at 802/808)
.103	Kentum
.104	Satem
.11	Indic languages
.12	Ancient Indic, Sanskrit, Vedic
.13	Middle Indic. Prakrit, Pali
.14	Modern Indic languages: Hindi, etc.
.141	Sindhi
.142	Punjabi (Panjabi)
.143	Hindi, Urdu (Hindustani)
.144	Bengali
.145	Oriya
.146	Marathi
.147	Gujerati
.148	Sin(g)halese (Ceylon)
.149	Assamese, Nepalese, Kashmiri and othbr modern Indic languages

809.15	Iranian languages. Persian
.151	Old Bactrian (West Iranian)
.152	Zend, Avestan (East Iranian)
.153	Middle Persian. Pehlevi
.155	Modern Persian
.156	Ossetian
.157	Kurdish
.158	Pushtu (Afghani)
.159	Baluch iand other Iranian languages
.16	Celtic languages
.161	Gaelic (Goidelic) group
.162	Irish Gaelic (Erse)
.163	Scots Gaelic (Gadhelic)
.164	Manx
.165	Cymric (Brythonic) group. Welsh. Cornish
.168	Breton
.169	Basque (Iberian Basque)
.198	Various (Western) Indo-European languages
.1	Armenian
.3	Albanian
.6	Tocharic
.7	Hethitic
.199	Various dead languages (of Europe and Asia Minor)

809.2 Semitic languages, Hebrew, Arabic, etc.

-021	Original ancient Semitic
.21	Accadian, Babylonian-Assyrian (Eastern Semitic)
.211	Babylonian. Sumerian
.212	Assyrian
.22	Aramaic and Palestinian (Western Semitic)
.221	Aramaic and Chaldee
.222	Judaeo-Palestinian. Samaritan
.23	Syriac. Eastern Aramaic

809.24	Hebrew
.249	Canaanite. Moabite
.26	Phoenician. Punic
.27	Arabic
.272	Classical Arabic
.275	Southern Arabic
.28	Ethiopian Semitic languages. Tigrina. Tigré. Amharic
809.3	Hamitic languages
.31	Egyptian (Dynastic) → 003.322; 809.27
.32	Coptic
.33	Libyan-Berber. Berber
.35	Ethiopian Hamitic. Cushitic, Galla and Somali
.351	Galla
.352	Somali
809.4/.9	Isolating and agglutinative languages
809.41/.45	Turanian (Uralo-Altaic) languages. Turkish, Hungarian, Finnish, etc.
.41	Manchu and Tungusian languages
.42	Mongol (Buryat, Kalmuk, etc.)
.43	Turco-Tartar languages. Turkish, etc.
.434	Western group: Kirghiz, Kazakh, etc.
.435	Turki: Osmanli, Ottoman Turkish
.436	Other Southern group languages: Turkmen, Azerbaijani, etc.
.437	Central group. Uzbek, etc.
.438	Eastern group. Yakut, etc.
.44	Samoyed languages
.45	Ugrian, Finno-Ugrian languages
.451	Ugric group: Hungarian, Vogul, Ostiak
.1	Hungarian (Magyar)
.452	Volga (Finnic) group
.453	Permian (Finnic) group

809.454	West Finnic group: Finnish and Estonian
.1	Finnish (Suomi)
.2	Karelian
.5	Estonian
.455	Lapp(ish)
809.46	Caucasian languages
.461	North Caucasian branch
.463	South Caucasian. Georgian, etc.
809.47	Hyperborean and Eskimo languages
.471	Hyperborean (Palaeoasiatic) languages. Ainu, etc.
.475	Eskimo languages
809.48	Dravidian languages
.481	Tamil-Kurukh group
.1	Tamil
.2	Malayalam
.4	Canarese (Kanara)
.7	Kurukh branch
.482	Kui-Gondi group
.483	Telugu
809.5	Asiatic languages (other than the foregoing)
.51	Chinese
.511	Northern Chinese: Pekinese, Mandarin Chinese
.512	Southern Chinese: Cantonese, etc.
.52	Thai-Chinese languages: Siamese, etc.
.523	Thai languages(in general)
.524	Siamese
.527	Annamese
.528	Muong
.53	Yenissei-Ostiak and Kottic
.54	Tibetan (languages)
.55	Himalayan languages: Kiranti (Nepal); Naga, Boda (Assam), etc. Cf. 801.149

809.56	Japanese
.57	Korean
.58	Burmese and Kuki-Chinese
.581	Burmese (and Arakan)
.585	Kuki-Chinese group
.59	Austro-Asiatic languages
.593	Protomalaccan languages
.594	Khasi-Nicobar languages
.595.1	Mon-Khmer languages
.2	Munda languages
809.6	African languages (Negro, etc.) → 809.2/.3
.61/.62	Palaeo-African (Bushman-Hottentot) languages
.61	Hottentot languages
.62	Bushman languages
.63	Bantu languages
.635.1	Teke group: Duala, Bengo, etc.
.2	Songo
.3	Herero-Ndonga group
.4	Swaheli group
.6	Konde group
.7	Makua group
.8	Kaffir-Sotho group: Sotho, Xosa-Zulu, etc.
.66	Sudanic languages. Bantuids. Hausa, etc.
.662	Wule languages
.663	Manfu languages
.664	Ngonke languages
.665	Kanuri languages
.666	Nilotic languages
.667	Bantuids languages
.668	Hausa or Houssa languages

809.7/.8 American (Indian) languages

.7 North and Central Amerindian languages. Cf. 809.475
.711 Kenai group
.712 Na-Dene, Athabascan (including Chipewayan, Apachean)
.713 Algonkian-Mosan group (including Delaware, Cree)
.715 Siouan group
.717 Appalachian group (including Cherokee, Choctaw, Creek). Cf. 809.715
.718 Tlingit. Cf. 809.712
.723 Ungrouped Pueblo (Plains) Indian languages
.724 Ungrouped Mexican languages
.725 Aztec (Sonoran) group
.726 Mayan-Quiche group
.78 Ungrouped Central American and Carribean (Antilles) languages: Kuerba, Ciboneye, etc.
.8 South Amerindian languages
.812 Tupi, Guarani (Paraguay)
.817 Tehuelche (Patagonia)
.819 Chibcha
.821 Kechua or Quechua

809.9 Austronesian, Malayo-Polynesian and Australasian languages

.92 Malayo-Polynesian, Indonesian languages
.921 Northern (Tagala) group
  .1 Tagala (Philippines)
  .2 Formosan
  .9 Malgasi (Madagascar)
.922 South and East Indonesian groups
  .1 Malayan (Sumatra, etc.)
  .2 Javanese
  .3 Balinese
  .5 Sundanese
  .6 Non-Malayan languages of Sumatra
  .7 Languages of Borneo (Irian)
  .8 Languages of Celebes. Sulawesi
  .9 East Indonesian and other Indonesian languages

809.923	Oceanic, Melanesian and Polynesian languages
.1	Melanesian and Micronesian languages
.2	Polynesian languages. Maori. Hawaiian. Samoan
.95	Australian and Papuan languages
.951	Australian aboriginal languages
.957	Papuan
.958	Tasmanian
.991	Antarctic

82 LITERATURE (IN GENERAL)

General philology → 80, but for specific languages group, if preferred with literature, using .07... below in contrast to .08 (literary activity)

82(091)	History of literature (in general)
82-0	General language forms and characteristics ≙ 800 (as under 802/809), e.g.
-02	Original form, periods or phases
-022	Old or early form
-023	Middle, mediaeval form
-087	Dialects, Patois
82-1/-9	Literary forms. Cf. 82.08
82-1	Poetry. Poems. Verse. Odes. Ballads
-12	Dramatic poems or verse Cf. 82-2
-13	Epic poems. Sagas, etc.
-14	Lyrical verse. Odes. Elegies, ballads, etc.
-15	Didactic verse Cf. 82-92
-16	Narrative poems or verse
-17	Humorous and satirical verse. Cf. 82-36; 82-7
-191	Allegorical poems or verse. Fables. Parables
-193	Minor poems. Riddles. Epigrams, etc.
-194	Poetry almanacs, calendars, etc. Cf. 059

82-2	**Drama. Plays. Libretti, etc.** → 792 (Theatre)
-21	Tragedies
-22	Comedies, farces, etc.
-23	Popular tragedies
-24	Histories (drama). Historical plays
-25	Various dramatic pieces. One-act plays. Short sketches, etc.
-251	Religious plays Cf. 82-291
-252	Fairy-tale nad fantasy pieces
-254	Pieces for festive occasions. Occasional pieces, sketches
-27	Monologues. Declamations. Monodrama
-28	Pieces with a purpose or message. Propaganda plays
-291	Mediaeval nativity and morality plays → 398.5
.1	Liturgical, biblical plays. Nativity and miracle plays Cf. 82-251
.2	Early secular, morality and satirical plays . Mummery Cf. 82-7
-292	Popular, traditional theatre pieces
-293	Libretti. Lyrics (for musical plays, etc.)
82-3	**Prose (descriptive, fictional)Y Tales**
-31	Novels. Full-length tales or stories (used also at 791.43)
-311.1	Psychological novels or tales
.2	Character and real-life novels
.3	Adventure, action, "wild-west" tales. Sea stories
.4	Social novels. Picaresque novels
.5	Light, comic and humorous novels Cf. 82-7
.6	Historical and political novels. War stories
.8	Travel tales. Exotic tales
.9	Science fiction

82-312.2 Religious, mystic and morality tales
Cf. 82-251; 82-291

.3 Rural, country-life novels and romances

.4 Crime and detection novels or tales
Cf. 82-312.9

.6 Autobiographical novels
Cf. 82-94

.7 Novels, tales in letter or dialogue form
Cf. 82-6

.9 Mystery and horror novels or tales
Cf. 82-312.4

-313.1 Satirical novels or tales

.2 Utopian novels or tales

-32 Short stories. "Novellen"
≙ 82-31

-34 Imaginary, made-up stories. Legends, etc.
→ 398.2

-36 Funny stories. Anecdotes
Cf. 82-17; 82-84

-39 Early romantic fiction. Romances
Cf. 82-34

82-4 Essays. Sketches. Discourses

82-5 Addresses. Lectures. Speeches

82-6 Letters. Epistles
Cf. 82-311.7

82-7 Humour. Satirical prose. Parodies, etc.

82-8 Miscellanies, conversation pieces

-82 Miscellanies. Extracts. Selections. Anthologies
→ (08); 08

-83 Conversational and philosophical pieces. Dialogues

-84 Maxims. Proverbs. Sayings. Aphorisms. Table-talk
Cf. 82-36

-845 Witticisms. Jokes. Puns, etc.

82-9 Other literary categories, or forms of writing

-91 Popular, expurgated versions

-92 Journalistic literature. Polemics, diatribes, etc.
(05); 05; 07

-93 Children's tales or stories (as literature)
→ 087.5

82-94	History and biography (as literature). Chronicles . Memoirs. Diaries. "Lives" Cf. 82-24; 82-311.6; 82-312.6 → 92
-95	Criticism. Reviews. Apologia (as literature) Cf. 82.09
-96	Scientific, philosophical writings (as literature) → 001.92; 82-311.9
-97	Religious, mystical writings (as literature) → 244/245; 82-251
-98	Mottoes, watchwords, anagrams, etc. → 929.6.019
-991	Dissertations, literary or moral
-992	Tour or travel reports
-993	Licentious, suggestive, bawdy, lewd, obscene, ribald and pornographic literature → 176.8
-994	Eccentric, mad, fanatical, visionary writings
-995	Imitative writings. Pastiches, etc. → 82... A/Z...04 (individual works)

82.0 Theory, study and techniques (of literature)

.01 Aesthetics and taste

82.03 Interpreting and translating

→ -03(Aux.I.e); 82... A/Z... 03 (individual works)

.033 Interpreting

.035 Translating

82.07 Linguistic and philological studies

Only to bring together linguistics and literatures of individual languages, as alternative to 802/809, & 801, e.g.

.074 Phonetics

.075 Grammar, semantics

.076 Prosody, metre, rhythm, rhyme

82.08 Literary activity and technique. Writing. Editing. Speaking

.081 Creative writing. Art of writing. Authorship

.083 Editing. Adapting and arranging copy for publication

.085 Rhetoric. Oratory. Eloquence. Art of (public) speaking

.1 Elocution (principles): voice and diction
→ 534.78; 612.78; 801.4

.12 Vocalization, voicing and utterance, vocal pitch

.13 Enunciation, articulation. Speech clarity, impediments

.15 Intonation, vocal modulation, lilt, etc.

.16 Breathing, sustained. Speech hygiene

.17 Tempo, rhythmic speed. Pauses

.2 Speaking (in public). Declamation, oration, lecturing, preaching, etc. Reading aloud. Recitation. Art of the diseur
→ 792.028; 82-2

.3 Gesture. Facial expression. Posture. Stance. Bearing
→ 159.925; 159.942; 800.95

.4 Eloquence, persuasiveness, temperamental aptitude

.43 Speaker-audience relationship. Audience or listener psychology
→ 792.028

.09 Literary criticism and studies
→ 82... A/Z... 06 (individual works)

.091 Comparative literary studies

82...A/Z Works of specific authors

Names, abbreviated if desired, are arranged alphabetically after numbers for languages, e.g.

820 Shak.	Works of Shakespeare
840-2 Mol.	Dramatic works of Molibre

.01/.09 (Applicable to 82...A/Z 1 to 7)

.01 in original language

.02 in bilingual or annotated edition

.03 Translated or transcribed
Cf. =03(Aux.I.c); 82.03

.04 Imitations. Plagiarisms
Cf.82-995

.05 Abridgments, paraphrases

.06 Reviews, critical studies
Cf. 82.09

.07 Interpretations, recensions

.08 Language and style studies

.09 Continuations, sequels (by others),etc.

82...A/Z1	Complete works or sets
2	Incomplete collections
3	Selections. Anthologies
4	Contributions (in others' works), joint works
411	Forewords. Prefaces
412	Periodicals, collections, etc. edited or contributed to, by the author
5	Anonymous works attributed to the author, pseudonymous works
6	Works in author's name attributed to others
7	Individual works (alphabetically by titles or date order)

820/89	LITERATURES OF SPECIFIC LANGUAGES ≙ -20/-9 or 802.0/809, e.g.

820	English literature
(54)	Indian literature (in English)
(71)	Canadian literature
(73)	American literature (U.S.A.)
(94)	Australian literature
-0/-9	Phases and literary forms: poetry, novel, etc. ≙ 82-0/-9
.081	Art of writing English

83	Germanic literatures

830	German literature
(436)	Austrian literature
(494)	Swiss (German) literature
839.3	Dutch. Flemish and Afrikaans
.31	Dutch literature
839.5	Scandinavian literatures (generally)
.59	Icelandic literature
.6	Norwegian literature
.7	Swedish literature
.8	Danish literature

84	Romance literatures
840	French literature
(494)	Swiss French literature (Suisse romande)
(493)	Belgian French (Walloon) literature
(71)	Canadian French literature
849.9	Catalan literature
850	Italian literature
859.0	Romanian literature
860	Spanish literature
(8)	Hispanic-American literature
869.0	Portuguese literature
(81)	Brasilian literature
87	Litertures of classical languages
871	Classical latin literature
875	Classical Greek literature
877.4	Modern Greek (Romaic)
881	Slavonic literatures
882	Russian literature
883	Ukrainian literature
884	Polish literature
885	Czech and Slovak literature
886.1	Serbian literature
.7	Bulgarian literature
888	Baltic literatures
.2	Lithuanian literature
.3	Lettish literature

89 LITERATURES OF ORIENTAL, AFRICAN AND OTHER LANGUAGES

891.1	Indic literatures in general
.2	Sanskrit, Vedic literature
.4	Modern Indic literatures ≙ =914 and 809.14, e.g.
.43	Hindi, Urdu literature
.44	Bengali literature
.48	Sin(g)halese literature
.5	Iranian, Persian literatures
.6	Celtic (and Basque) literatures ≙ =916 and 809.16
.62	Irish Gaelic (Erse) literature
.63	Scots Gaelic literature
.65	Welsh (Cymric) literature
.68	Breton literature
.69	Basque literature
.981	Armenian literature
.983	Albanian literature
892	Semitic literatures ≙ =92 and 809.2
.4	Hebrew literature
.7	Arabic literature
.8	Amharic and other Ethiopian literatures
893	Hamitic literatures ≙ =93 and 809.3
.1	Egyptian (Dynastic) literatures
.3	Berber literature
894/899	Literatures of isolating and agglutinative languages
.35	Turkish literature
.511	Hungarian (Magyar) literature
.541	Finnish literature
.6	Georgian and other Caucasian literatures
.8	Dravidian literatures (Tamil, Telugu, etc.)

895	Literatures of Asiatic languages ≙ -95 and 809.5
.1	Cinese literature
.2	Thai-Chinese, Siamese, Annamese literatures
.6	Japanese literature
.81	Burmese literature
896	Literatures of African languages ≙ -95 and 809.6
.3	Bantu literatures: Swaheli, etc.
.6	Sudanic and Bantuide literatures: Hausa, etc.
897/899	American Indian literature ≙ -97/-98 and 809.7/.8
899	Austronesian literatures ≙ -99 and 809.9
.2	Malayo-Polynesian literature

9 GEOGRAPHY. BIOGRAPHY. HISTORY

908	THE HOMELAND
	Comprehensive studies on history, geography, economics and culture of a country → 308; 338; 7.03; 914/919
	Divide as (3/9), Aux.I.e, e.g.
.411"16"	Scotland in the 17th century
.436.6	Kärntner Heimatbuch (Carinthian Homeland)

91 GEOGRAPHY, EXPLORATION. TRAVEL

→ 308; 528; 551.4

Topographical or regional apects of specific subjects are classed under the appropriate UDC numbers, using the (1/9) auxiliaries, e.g.
331.2(45) Wages in Italy

(026)	Guidebooks. Travel guides (under 914/919)
(03)	Gazetteers
-1/-9	Boundaries, zones, frontiers, etc. : (1-1/-9) applicable throughout 913/919
910	GENERAL GEOGRAPHICAL STUDIES. GEOGRAPHY AS A SCIENCE. TRAVELS. EXPEDITIONS. VOYAGES. EXPLORATIONS. DISCOVERIES
.1	Scientific theory, systems and methods of geography
.2	Travel and exploration techniques. Travel preparation, equipment, supplies
.26	Evaluation of literature, maps and other illustrations for geographical research, e.g.
:528.77	Geographical interpretation of aerial photos
.3	Exploration of specific regional features, e.g.
:551.324	Glacier exploration
.4	Expeditions. Voyages. Travels (general accounts) → 379.85; 913/919
:392.5	Honeymoon trips
:658	Business and trade trips
:796.5	Walking and climbing tours
:930.26	Archaeological expeditions

910.4(100)	World voyages, tours, etc.
(21)	Overland expeditions
(26)	Ocean or sea voyages
(430:55)	Travels from Germany to Iran (Persia)
(99)	Antarctic expeditions
911	GENERAL GEOGRAPHY (PHYSICAL, HUMAN, CULTURAL, APPLIED, ETC.)
.2	Physical and natural geography, e.g.
:551.46/.49	Hydrogeography
:581.9	Plant geography, phytogeography
.3	Human (cultural) geography
:312	Demogeography
:33	Economic geography
:616	Geography of disease and epidemics
:627.8	Geography of dams and hydraulic power installations
:711	Geography of physical planning and settlement
.5	Typological geography. Geographical landscape types → 712.2
.6	Regional units (physical, cultural, national)
.7	Comparative geography
.8	Norms and laws (of form, ecology, development, etc.)
.9	Applied (practical) geography
:502.7	Nature and wild life protection areas
912	PICTORIAL REPRESENTATIONS OF GEOGRAPHICAL AREAS
	Diagrams. Profiles. Maps. Cartograms. Atlases. Globes → 528.7;528.9; 778.35/.36
	Details by (0), (4/9) and "...", e.g.
(084)	Two-dimensional (graphic): photographs, maps, atlases, etc.
(086.4)	Three-dimensional: globes, reliefs, etc.
(6)"17"	Maps, etc. of Africa from the 18th century

913/919 REGIONAL AND DESCRIPTIVE GEOGRAPHY OF THE WORLD

-1/-9 Specific areas, units, physiographical regions, etc.
≐"(1-1/-9), e.g.
- 913.7-52 Colonial areas of the Roman Empire
- 914.30-18 Geography of North-East Germany
- 917-927.6 North American plains region

(100) Geography of the whole world

(21) Regional geography of the continents
Cf. 914/919

(26) Regional geography of the earth's oceans and seas

913.1 GEOGRAPHY OF THE ANCIENT WORLD (ANTIQUITY)
913.2/.9 ≐ (32/39)

.15 Ancient China and Japan (Far East)

.2 Ancient Egypt

.3 Judaea

.4 Ancient India (and Indochina)

.5 Ancient Mesopotamia, Media and Persia, Chaldaea, Babylonia, Parthia, Sassania, etc.

.6 Countries of the barbarians (Germania, Slavia, etc.)

.66 Ancient Britain

.7 Ancient Rome and Italia. Roman Empire

.8 Ancient Greece

914/919 MODERN GEOGRAPHY OF INDIVIDUAL COUNTRIES AND TERRITORIES
≐ (4/9), e.g.

914 Geography of Europe
≐ (4), with -1/-9 ≐ (1-1/-9), e.g.

-11 Eastern Europe

-15 Western Europe

-61 International communities in Europe

-924 Physiogeographical regions of Europe, e.g.
- .4 Alps region, Jura and Lombardian plain
- .8 Russian (E. European) plain (tundra, steppe)

914.1	British Isles: Great Britain and Ireland
.30	Germany
.36	Austria
.37	Czechoslovakia
.38	Poland
.39	Hungary
.4	France
.5	Italy
.6	Spain and Portugal
.7	USSR (in Europe). Cf. 915.7
.8	Scandinavian countries
.92	Netherlands
.93	Belgium
.94	Switzerland
(-3)	German-speaking Switzerland
(-4)	Suisse Romande
.95	Greece
.971	Yugoslavia
.972	Bulgaria
.98	Rumania
915	Geography of Asia
	& (5), with -1/-9 & (1-1/-9), e.g.
-11	Eastern Asia
-15	Western Asia
-52	Colonial territories in Asia
-925	Physiogeographical regions of Asia, e.g.
.3	Central Asia and Himalayan region
.7	East Asian Monsoon region
.1	China and neighbouring countries
.2	Japan
.4	Indo-Pakistan subcontinent with Ceylon
.40	India
.49	Pakistan

915.6	Asia Minor, Turkey, etc.
.694	Israel
.695	Jordan
.7	Asiatic USSR
.9	Malaya. Indo- China Cf.919.1
.91	Burma
.93	Thailand (Siam)
.97	Vietnam
916	Geography of Africa ≙ (6), with -1/-9 ≙ (1-1/-9), e.g.
-4	Independent states in Africa
-52	Colonial, mandated territories in Africa
-926	Physiogeographical regions of Africa, e.g.
.2/.3	Sahara and Sudan regions
.7	Eastern High Africa
.1	North African countries
.2	Egypt and Sudan
.3	Ethiopia (Abyssinia)
.4	Morocco
.5	Algeria
.6	West African countries: Mali. Senegal. Guinea, etc.
.67	Ghana
.69	Nigeria
.7	Equatorial, Central and East African countries
.75	Congo (Democratic Republic)
.76	East Africa: Uganda, Kenya
917	Geography of North America ≙ (7), with -1/-9 ≙ (1-1/-9), e.g.
-15	Western North America
-927	Physiogeographical regions of N. America, e.g.
.1/.4	Cordilleras and Rocky Mountains
.6	Interior plains, Prairie and Lakes region

917.1	Canada
.2	Mexico and Central American states
.29	Caribbean and West Indian territories
.3	United States of America
918	Geography of South America ≙ (8), with -1/-9 ≙ (1-1/-9), e.g.
-17	Northern South America
-6	International alliances and unions in S. America
-928	Physiogeographical regions of S. America, e.g.
.1/.4	Andes region(s)
.8	Amazon region
.1	Brazil
.2	Argentina
.3	Chile
.4	Bolivia
.5	Peru
.6/.7	Columbia, Ecuador and Venezuela
.8	Guiana
.9	Paraguay and Uruguay
919	Geography of Oceania and Polar regions ≙ (9), with -1/-9 ≙ (1-1/-9), e.g.
-4	Independent states in Oceania and Austronesia
-52	Colonial, mandated trust territories
-929	Physiogeographical regions of Oceania
.1	Malay Archipelago.Indonesia. Philippines. Cf. 915.9
.3	Australasia. Melanesia. New Zealand
.4	Australia (and Tasmania)
.5	New Guinea and Papua
.6	Polynesia and Micronesia
.8/.9	[illegible] Polar regions
.8	Arctic (North Polar) region
-922	Physiogeographical regions ≙ (1-922) Aux.I.e
.9	Antarctic (South Polar) region. Antarctica
-923	Physiogeographical regions ≙ (1-923) Aux.I.e

92 BIOGRAPHY. FAMOUS LIVES

→ (092)Aux.I.4; 012; 82 esp. 82-94

92:0/9	Collective biographies relating to particular subjects.Cf.92A/Z For general biographical presentation of specific subject use 0/9...(092), e.g. 61(092) Biographical history of medicine
:61	Studies of eminent physicians and surgeons
:75	Biographies of famous painters
:78	Lives of great composers and musicians
92(...)"..."	Collective biographies by countries, races and periods, e.g.
"17"	Famous 18th-century figures (of all countries)
(=924)	Eminent Jews (of all lands)
(485)	Biographies of prominent Swedes
(485)"17"	Prominent Swedes of the 18th-century
(73)	Lives of eminent (U.S.) Americans
(73=9)	Eminent "coloured" Americans
(73=9)"18"	Eminent 19th-century "coloured" Americans
92A/Z	Individual biographies Names (in brackets, and/or abbreviated if desired) arranged alphabetically, with data relating to specific fields by :0/9. Documents dealing with creative works of individual artists, authors, etc. are classed under the subject concerned, e.g. 72.034(42)Wren Wren and English architecture 75(Rubens) Paintings of Rubens 830(Goethe) The works of Goethe
Charles(44)I	Biographies of Charles I of France (Charlemagne)
Grotius	Biography or life of Grotius
(Goethe)	Biographies or studies of Goethe
:535	Goethe and optics (Farbenlehre)
"1792"	Goethe in 1792
920.91	Autobiographies

929 GENEALOGY. HERALDRY

929.1/.5 Genealogy

Cf. 312; 575.19

.11 Theoretical genealogy. Stock. Descent, etc.
Lineage, ancestry and kinship tables
→ -055(Aux.I.k)

.2 Special family study: histories, trees
Divide by A/Z, (3/9) and "...", e.g.

929.2Fugger History of the family of Fugger

929.22(44) Ascent tables of famous Frenchmen

929.22"17" Ascent tables of the 18th century

.09 Family names: origin, etc.
→ 347.189; 801.313

.21 Descent tables

.22 Ascent tables

.23 Consanguinity proofs. Consanguinity tables

.3 Registers of births, baptisms, marriages and deaths.
Registers of personal status, of members of a borough
→ 259; 347.183; 351.755.3

.32 Ecclesiastical registers. Church registers

:262.14 Registers of clergy and priests

.35 Registers by secular authorities

:351.755 Civic registers. Burgess-roll

.5 Epitaphs (grave, tombstone, etc.)
→ 726.82

929.6 Heraldry. Blazonry. Coats of arms

→ 736.75

.01 Theory. Fundamentals. Principles

.011 The shield or escutcheon and its forms

.012 Heraldic colours (tinctures of the shield)

.013 Division of shield

.014 Devices. Charges. Crests. Bearings

.1 Charges

.2 Natural figures

.3 Artificial figures

.5 Imaginary shapes or forms

.8 Letters

.018 Accessories. Headgear, crowns, coronets.
Marks of rank, badges, emblems, etc.

.019 Mottoes. War cries, etc.
→ 82-98

929.7 Nobility. Titles

.031 Nature, characteristics, establishment and hierarchy of nobility

.034 Proof of nobility. Certificat

.035 Rights and privileges associated with nobility

.036 Duties and obligations associated with nobility

.07 Degrees of nobility. Order of precedence

.71 Orders and decorations. Knightly orders. Honours
Cf. 351.856.2; 355.134
Divide by (4/9) and A/Z, e.g.
(42)KCVO Knight Commander of the Victorian Order

929.9 Flags. Standards
→ 355.15

.021 National flag. National colours

.022 Flags of regions, cities, etc.

.023 Official flags and standards of individual persons, heads of state, etc.

.025 Flags of the merchant navy

93 HISTORY

→3; 571; 7.03

History of specific subjects, use 0/9...(091), e.g.
51(091) History of mathematics

93"..." Chronological division. Cf. 930.24

Applicable throughout 93/99, e.g.

942"15" 16th-century England

944"04/14" France in the Middle Ages

93(093) Documentary sources. Cf.930.2
Applicable throughout 93/99, e.g.

944"1789"(093.3) Literary records of the French Revolution

930 HISTORICAL SCIENCE. COLLATERAL AND AUXILIARY SCIENCES, E.G.

(485)"18" Historical science in Sweden in the 19th century

.1 History as a science

.2 Method. Study of sources as auxiliary science of history

:003 Writing, scripts

.22 Theory of documents. Cf.003.7

.23 Historical criticism

.24 Historical chronology
→ 529

930.25 Archivistics. Historical documents. Public records
→ 651.5

.251 Archivistics. Technique and organization of archives
.253 Archives. Collection
:352 Local authority archives
.255 Indexes and lists of archives

930.26 Archaeology. Antiquities
→ 571; 7.031

"04/14" Mediaeval archaeology (Middle Ages)
(3) Classical antiquities. Archaeology of the ancient world
(6) African antiquities

.27 Epigraphy and palaeography
→ 003.07; 801.7

.271 Epigraphy. Inscriptions
.272 Palaeography. Ancient writings

.8 General comprehensive historical considerations. Descriptive universal historical studies

.85 History of civilization
→ 008; 7.03

.9 General history. World history
(in the restricted sense, chronological summation of facts)

931 ANCIENT HISTORY (GENERAL)
932/939 ≙ (32/39), e.g.

.5 Ancient China and Japan (up to c. 600 A.D.)
932 Ancient Egypt (up to c. 640 A.D.)
933 Ancient Palestine. Judaea (up to c. 70 A.D.)
934 Ancient India and Indo-China
935 Ancient Mesopotamia: Medes and Persians, Assyrians and Babylonians

936	North-, West-, and East-European tribes(up to c.476 A.D.), e.g.
.3	Germanic tribes
.4	Celts
.6	Britons
.7	Slavs
937	Ancient Rome (up to c.476 A.D.)
938	Ancient Greece
939	Other parts of the Ancient World
.7	Africa. Carthage, etc.
.8	South Eastern Europe
.97	Ancient America (of the Indians)
94	MEDIAEVAL AND MODERN HISTORY
	94/99 ≙ (4/9), with "...", etc.
"04/14"	Mediaeval history (but → 940.1)
"15/19"	Modern history (but → 940.2)
940	History of Europe. ≙ (4) with "...", etc.
"04/14"	History of Europe in the Middle Ages
"16"	History of Europe in the 17th-century
"1618/1648"	Thirty years war
"18"	19th century Europe and the industrial revolution
.1	Mediaeval European history (5th-15th century) And/or use 94..."04/14"
.2	Modern European history (16th century onwards) And/or use 94.."15/19"
.3	History of World War I, 1914/1918
.5	History of Europe since 1919. 20th century Europe in general
.53	History of World War II, 1939/1945
.55	Post-war history, 1945 -
941	Britain. British Empire and Commonwealth
941.0	United Kingdom (Great Britain and Northern Ireland)
941.7	Irish Republic (Eire), formerly free state
[illegible]	[illegible] states
943.0	Germany
943.59	Luxemburg
943.6	Austria
943.648	Liechtenstein

943.7	Czechoslovakia
943.8	Poland
943.9	Hungary
944	France
944.949	Monaco
945	Italy
945.44	San Marino
945.631	Vatican
946	Spain
946.72	Andorra
946.9	Portugal
947	U.S.S.R. Russia, Baltic Republics, Ukraine, etc.
948	Scandinavian countries
948.0	Finland. Suomi
948.1	Norway
948.5	Sweden
948.9	Denmark
949.11	Iceland
949.2	Netherlands
949.3	Belgium
949.4	Switzerland
949.5	Greece. Cf. 949.7
949.65	Albania
949.7	Balkan states (generally). Cf. 949.5
949.71	Yugoslavia
949.72	Bulgaria
949.8	Romania
950	History of Asia. ≐ (5) with "...", etc.
-011	Middle or Near East (generally)
-012	Far East (generally)
951	China and neighbours
951.0	Chinese People's Republic
951.73	Mongolian People's Republic
951.9	Korea

952.0	Japan
952.9	Taiwan (Formosa, Rpublic of China)
953	Arabian peninsula states
953.2	Saudi-Arabia
953.3	Yemen
953.5	Muscat and Oman
953.65	Bahrain
953.68	Kuwait
954	Indo-Pakistan sub-continent
954.0	India (Republic)
954.131	Bhutan
954.133	Sikkim
954.135	Nepal
954.87	Ceylon
954.882	Maldive islands
954.9	Pakistan
955	Iran (Persia)
956	Asia Minor
956.0	Turkey
956.43	Cyprus
956.7	Iraq
956.91	Syria
956.93	Lebanon
956.94	Israel
956.95	Jordan
957	Asiatic U.S.S.R. Cf. 947
958	Afghanistan
959	South-East Asia and Indo-China
959.1	Burma
959.3	Thailand (Siam)
959.5	Malaya (Federation). Malaysia
959.513	Singapore
959.6	Cambodia
959.7	Vietnam
959.8	Laos

960	History of Africa. ≙ (6), with "...", etc.
961	North Africa. Mahgreb countries (generally)
961.1	Tunisia
961.2	Libya
962	Egypt (and the Sudan)
962.0	United Arab Republic (Egypt)
962.4	Sudan (Republic)
963	Ethiopia (Abyssinia)
964	Morocco
965	Algeria
966	West and N. Central Africa
966.1	Mauritania
966.21	Mali
966.25	Upper Volta
966.26	Niger (Republic)
966.3	Senegal
966.4	Sierra Leone
966.51	Gambia
966.52	Guinea
966.6	Liberia
966.68	Ivory Coast
966.7	Ghana
966.81	Togo
966.82	Dahomey
966.9	Nigeria
967	Equatorial, S. Central and East Africa
967.11	Cameroon
967.21	Gabon
967.24	Congo (Brazzaville). Cf. 967.5
967.3	Angola
967.41	Central African Republic
967.43	Chad (Republic)
967.5	Congo (Democratic Republic)
967.597	Burundi
967.598	Rwanda

967.6	East Africa
967.61	Uganda
967.62	Kenya
967.7	Somalia. Somali Republic
967.8	Tanzania (Zanzibar & Tanganyika)
968	South(ern) Africa
968.0	South-Africa (Republic)
968.1	Botswana (Bechuana Land)
968.61	Lesotho
968.3	Soth
968.8	South-West Africa
968.9	Rhodesias and Nyasaland
968.91	Rhodesia (Southern Rhodesia)
968.94	Zambia (Northern Rhodesia)
968.97	Malawi (Nyassaland)
969.1	Madagascar . Malagasy Republic
970	History of North and Central America. ≙ (7), with "..."
971	Canada. ≙ (71), e.g.
.4	Quebec
.8	Newfoundland and Labrador
972	Mexico
972.8	Central American States
972.81	Guatemala
972.83	Honduras
972.84	El Salvador
972.85	Nicaragua
972.86	Costa Rica
972.87	Panama
972.9	Caribbean and West Indian states
972.91	Cuba
972.92	Jamaica
972.93	Dominican Republic
972.94	Haiti
972.987	Trinidad and Tobago
973	United States of America (U.S.A.)

980	History of South America. ≙ (8), with "..."
(=6)	Latin America
981	Brasil
982	Argentina
983	Chile
984	Bolivia
985	Peru
986.1	Colombia
986.6	Ecuador
987	Venezuela
988.1	Guyana
989.2	Paraguay
989.9	Uruguay
990	History of Australasia, Oceania and Polar Regions. ≙ (9), with ".."
991	East Indies (generally)
991.0	Indonesia
991.4	Philippines
993	Australasia and Melanesia
993.1	New Zealand
994	Australia (Commonwealth). ≙ (94), e.g.
.4	New South Wales
.8	Tasmania
998/999	Polar regions
998	Arctic and North Polar regions
999	Antarctic and South Polar regions